NATIONAL ADVISORY COMMITTEE FOR AERONAUTICS

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INDEX OF NACA TECHNICAL PUBLICATIONS

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PREFACE

The Preface to the Index of NACA Technical Publications, 1915 - 1949, mentioned that regular supplements would be issued in the future. This is the third such Supplement and covers those documents issued from June 1953 through May 1954. Also included are certain documents dated prior to June 1953 which have been declassified during the period covered by this supplement. Similar arrangement is used in these Indexes. First, there is a classified listing of the subject categories; second, a chronological listing of NACA publications under each subject category; third, an alphabetical index to the subject categories; and finally, an author index. Immediately following this Preface is an Explanatory Chart of NACA Publications Series Designations which may be of use in identifying references to NACA research reports encountered in the literature.

For those maintaining a file of NACA index cards, it is recommended that cards issued for reports dated prior to June 1, 1954, be removed from the file as this volume includes the same index information.

NACA documents issued since June 1, 1954, have been listed in NACA Research Abstracts, an announcement service which also includes notices of reclassification of NACA research reports as well as those documents available for loan.

Division of Research Information
National Advisory Committee for Aeronautics
1512 H Street, N. W.
Washington 25, D. C.

Sept. 1, 1954

EXPLANATORY CHART OF NACA PUBLICATIONS SERIES DESIGNATIONS

PUBLICATIONS SERIES	SYMBOL	CURRENTLY ISSUED	NUMBERED CONSECUTIVELY	NUMBER BASED ON LABORATORY** OF ORIGIN	NUMBER BASED ON DATE OF ISSUE- YEAR* MONTH# DAY###	EXAMPLE WITH EXPLANATION
Reports	None	Yes	Yes	No	No	Report 1004 - 1004th Report issued.
Research Memorandums	RM	Yes	No	Yes	Yes	RM L9K03a - Research Memorandum written by Langley Laboratory Personnel in 1949 and issued on November 3rd, being the second RM released on that date.
Technical Memorandums	TM	Yes	Yes	No	No	TM 1313 - 1313th Technical Memorandum issued.
Technical Notes	TN	Yes	Yes	No	No	TN 2432 - 2432nd Technical Note issued.
Wartime Reports	WR	No	Yes	Yes	No	WR A-6 - 6th Wartime Report issued that was based on Ames Laboratory research. Reported earlier to a limited audience and was reprinted.
Adv. Conf. Reports	ACR	No	No	Yes, after March, 1944##	Yes, after April, 1943##	ACR E4D19 - Advance Confidential Report written by Lewis Laboratory personnel in 1944 and issued on April 19th.
Adv. Rest'd. Reports	ARR	No	No	Yes, after March, 1944##	Yes, after April, 1943##	ARR L4K22b - Advance Restricted Report written by Langley Laboratory personnel in 1944 and issued on November 22nd, being the 3rd ARR issued on that date.
Conf. Bulletins	CB	No	No	Yes, after March, 1944##	Yes, after April, 1943##	CB E5J11 - Confidential Bulletin written by Lewis Laboratory personnel in 1945 and issued October 11th.
Memorandum Reports	MR	No	No	Yes, after October, 1944##	Yes, after October, 1944##	MR A4L12 - Memorandum Report written by Ames Laboratory personnel in 1944 and issued on December 12th.
Restricted Bulletins	RB	No	No	Yes, after March, 1944##	Yes, after April, 1943##	RB E6D22 - Restricted Bulletin written by Lewis Laboratory personnel in 1946 and issued on April 22nd.
Aircraft Circulars	AC	No	Yes	No	No	AC 150 - 150th Aircraft Circular issued.

Symbol and date only used prior to date mentioned.

**A - Ames
E - Lewis
L - Langley

*5 - 1945
6 - 1946
7 - 1947
8 - 1948
9 - 1949
50 - 1950
51 - 1951
52 - 1952

#A - January
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EXPERIMENTAL AERODYNAMIC DERIVATIVES OF A SINUSOIDALLY OSCILLATING AIRFOIL IN TWO-DIMENSIONAL FLOW. Robert L. Halfman, Massachusetts Institute of Technology. 1952. ii, 44p. diagrs., photo., 19 tabs. (NACA Rept. 1108. Formerly TN 2465)

THE SIMILARITY LAW FOR HYPERSONIC FLOW AND REQUIREMENTS FOR DYNAMIC SIMILARITY OF RELATED BODIES IN FREE FLIGHT. Frank M. Hamaker, Stanford E. Neice and Thomas J. Wong. 1953. ii, 11p. diagrs. (NACA Rept. 1147. Formerly TN 2443; TN 2631)

A METHOD FOR STABILIZING SHOCK WAVES IN CHANNEL FLOW BY MEANS OF A SURGE CHAMBER. Stanford E. Neice, Cornell University. June 1953. 46p. photos., diagrs. (NACA TN 2694)

THE CONDENSATION LINE OF AIR AND THE HEATS OF VAPORIZATION OF OXYGEN AND NITROGEN. George T. Furukawa and Robert E. McCoskey, National Bureau of Standards. June 1953. 30p. diagrs., 8 tabs. (NACA TN 2969)

AIR-WATER ANALOGY AND THE STUDY OF HYDRAULIC MODELS. (La Similitudine Aria-Acqua e lo Studio dei Modelli Idraulici). Giulio Supino. July 1953. 22p. diagrs. (NACA TM 1359. Trans. from Energia Elettrica, v. 28, no. 11, Nov. 1951).

THEORETICAL SUPERSONIC FORCE AND MOMENT COEFFICIENTS ON A SIDESLIPPING VERTICAL- AND HORIZONTAL-TAIL COMBINATION WITH SUBSONIC LEADING EDGES AND SUPERSONIC TRAILING EDGES. Frank S. Malvestuto, Jr. March 1954. 69p. diagrs., 2 tabs. (NACA TN 3071)

TURBULENT BOUNDARY-LAYER AND SKIN-FRICTION MEASUREMENTS IN AXIAL FLOW ALONG CYLINDERS AT MACH NUMBERS BETWEEN 0.5 AND 3.6. Dean R. Chapman and Robert H. Kester. March 1954. 53p. diagrs., photos., 5 tabs. (NACA TN 3097)

ON THE SOUND FIELD OF A POINT-SHAPED SOUND SOURCE IN UNIFORM TRANSLATORY MOTION. (Über das Schallfeld einer gleichförmig-translatorisch bewegten punkförmigen Schallquelle). H. Hönl. April 1954. 44p. diagrs. (NACA TM 1362. Trans. from Annalen der Physik, issue 5, v. 43, 1943, p. 437-464).

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

THE ROLE OF TRIPLE COLLISIONS IN EXCITATION OF MOLECULAR VIBRATIONS IN NITROUS OXIDE. Richard A. Walker, Thomas D. Rossing and Sam Legvold, Iowa State College. May 1954. 24p. diagrs., photo., 3 tabs. (NACA TN 3210)

INCOMPRESSIBLE FLOW
(1.1.1)

A METHOD FOR CALCULATING FLOW FIELDS OF COWLINGS WITH KNOWN SURFACE-PRESSURE DISTRIBUTIONS. Robert W. Boswinkle, Jr. November 22, 1948. 23p. diagrs. (NACA RM L8I17) (Declassified from Restricted, 12/14/53)

CONTINUATION OF WING FLUTTER INVESTIGATION IN THE TRANSONIC RANGE AND PRESENTATION OF A LIMITED SUMMARY OF FLUTTER DATA. William T. Lauten, Jr. and J. G. Barmby. April 21, 1949. 21p. diagrs., photos., 2 tabs. (NACA RM L9B25b) (Declassified from Restricted, 12/14/53)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

PRELIMINARY STUDY OF CIRCULATION IN AN APPARATUS SUITABLE FOR DETERMINING CORROSIVE EFFECTS OF HOT FLOWING LIQUIDS. Leland G. Desmon and Don R. Mosher. June 1951. 17p. diagrs., photos. (NACA RM E51D12)

DESIGN OF TWO-DIMENSIONAL CHANNELS WITH PRESCRIBED VELOCITY DISTRIBUTIONS ALONG THE CHANNEL WALLS. John D. Stanitz. 1953. ii, 40p. diagrs., 8 tabs. (NACA Rept. 1115. Formerly TN 2593; TN 2595)

THE STRUCTURE OF TURBULENCE IN FULLY DEVELOPED PIPE FLOW. John Laufer. National Bureau of Standards. June 1953. 53p. diagrs. (NACA TN 2954)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

A NOTE ON SECONDARY FLOW IN ROTATING RADIAL CHANNELS. James J. Kramer and John D. Stanitz. October 1953. 33p. diagrs. (NACA TN 3013)

Incompressible Flow (Cont.)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF LOW-SPEED TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Virgil A. Sandborn. October 1953. 37p. diagrs., photos. (NACA TN 3031)

CONCERNING THE FLOW ABOUT RING-SHAPED COWLINGS. PART XII. TWO NEW CLASSES OF CIRCULAR COWLS. (Über die Strömung an ringförmigen Verkleidungen. XII Mitteilung: Zwei neue Klassen von Ringhauben). Dietrich Küchemann and Johanna Weber. October 1953. 72p. diagrs., 3 tabs. (NACA TM 1360. Trans. from Zentrale für wissenschaftliches Berichtswesen der Luftfahrtforschung, Berlin. UM 3111)

CONCERNING THE FLOW ON RING-SHAPED COWLINGS. PART XIII. THE INFLUENCE OF A PROJECTING HUB. (Ueber die Strömung an ringförmigen Verkleidungen. XIII. Mitteilung: Der Einfluss einer vorgezogenen Nabe). D. Küchemann. October 1953. 19p. diagrs. (NACA TM 1361. Trans. from Zentrale fur wissenschaftliches Berichtswesen der Luftfahrtforschung, Berlin. UM 3144)

AN ANALYTICAL INVESTIGATION OF THE EFFECT OF THE RATE OF INCREASE OF TURBULENT KINETIC ENERGY IN THE STREAM DIRECTION ON THE DEVELOPMENT OF TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Bernard Rashis. November 1953. 30p. diagrs., 2 tabs. (NACA TN 3049)

CORRELATIONS INVOLVING PRESSURE FLUCTUATIONS IN HOMOGENEOUS TURBULENCE. Mahinder S. Uberoi, Johns Hopkins University. January 1954. 61p. diagrs., 2 tabs. (NACA TN 3116)

THE PLANE PROBLEM OF THE FLAPPING WING. (Das ebene problem des schlagenden flugels). Walter Birnbaum. January 1954. 38p. diagrs., tab. (NACA TM 1364. Trans. from Zeitschrift für augewandte Mathematik und Mechanik, v.4, no.4, August 1924, p.277-292).

INCOMPRESSIBLE FLOW PAST A SINUSOIDAL WALL OF FINITE AMPLITUDE. Carl Kaplan. February 1954. 26p. diagrs., 2 tabs. (NACA TN 3069)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

AERODYNAMICS OF SLENDER WINGS AND WING-BODY COMBINATIONS HAVING SWEPT TRAILING EDGES. Harold Mirels. March 1954. ii, 96p. diagrs. (NACA TN 3105)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

COMPRESSIBLE FLOW (1.1.2)

MEASUREMENT THROUGH THE SPEED OF SOUND OF STATIC PRESSURES ON THE REAR OF UNSWEPT AND SWEPTBACK CIRCULAR CYLINDERS AND ON THE REAR AND SIDES OF A WEDGE BY THE NACA WING-FLOW METHOD. Richard H. Sawyer and Fred L. Daum. July 21, 1948. 13p. diagrs., photos. (NACA RM L8B13) (Declassified from Restricted, 12/14/53)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. II - METHODS FOR DETERMINING COOLING-AIR-FLOW CHARACTERISTICS. Herman H. Ellerbrock, Jr. June 7, 1950. 20p. diagrs. (NACA RM E50A06) (Declassified from Restricted, 12/11/53)

NUMERICAL SOLUTION OF EQUATIONS FOR ONE-DIMENSIONAL GAS FLOW IN ROTATING COOLANT PASSAGES. W. Byron Brown and Richard J. Rossbach. June 26, 1950. 119p. diagrs., tabs. (NACA RM E50E04) (Declassified from Restricted, 12/11/53)

EFFECTS OF INLET WALL CONTOUR ON THE PRESSURE RECOVERY OF A 10° 10-INCH-INLET-DIAMETER CONICAL DIFFUSER. Martin R. Copp. September 1951. 29p. diagrs., photos. (NACA RM L51E11a)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

PRESSURE DROP IN COOLANT PASSAGES OF TWO AIR-COOLED TURBINE-BLADE CONFIGURATIONS. W. Byron Brown and Henry O. Slone. June 1952. 57p. diagrs., photos., tab. (NACA RM E52D01)

RECIPROCITY RELATIONS IN AERODYNAMICS. Max. A. Heaslet and John R. Spreiter. 1953. ii, 16p. diagrs. (NACA Rept. 1119. Formerly TN 2700)

CALCULATIONS ON THE FORCES AND MOMENTS FOR AN OSCILLATING WING-AILERON COMBINATION IN TWO-DIMENSIONAL POTENTIAL FLOW AT SONIC SPEED. Herbert C. Nelson and Julian H. Berman. 1953. ii, 16p. diagrs., 2 tabs. (NACA Rept. 1128. Formerly TN 2590)

COMPRESSIBLE-FLOW SOLUTIONS FOR THE ACTUATOR DISK. James B. Delano and John L. Crigler. March 1953. 70p. diagrs. (NACA RM L53A07)

SUBSONIC FLOW OF AIR THROUGH A SINGLE-STAGE AND A SEVEN-STAGE COMPRESSOR. Chung-Hua Wu. June 1953. 32p. diagrs., 2 tabs. (NACA TN 2961)

HEAT TRANSFER AND SKIN FRICTION BY AN INTEGRAL METHOD IN THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH A STREAMWISE PRESSURE GRADIENT. Ivan E. Beckwith. September 1953. 55p. diagrs., tab. (NACA TN 3005)

Compressible Flow (Cont.)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND SMALL PRESSURE GRADIENT. George M. Low. APPENDIX B. NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn U. Albers. October 1953. 68p. diagrs., 7 tabs. (NACA TN 3028)

TRANSIENT TEMPERATURE DISTRIBUTIONS IN SIMPLE CONDUCTING BODIES STEADILY HEATED THROUGH A LAMINAR BOUNDARY LAYER. Hermon M. Parker. December 1953. 42p. diagrs. (NACA TN 3058)

METHOD FOR CALCULATION OF COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH AXIAL PRESSURE GRADIENT AND HEAT TRANSFER. Paul A. Libby and Morris Morduchow, Polytechnic Institute of Brooklyn. January 1954. 44p. diagrs. (NACA TN 3157)

STUDY OF THREE-DIMENSIONAL INTERNAL FLOW DISTRIBUTION BASED ON MEASUREMENTS IN A 48-INCH RADIAL-INLET CENTRIFUGAL IMPELLER. Joseph T. Hamrick, John Mizisin and Donald J. Michel. February 1954. 84p. diagrs., photos. (NACA TN 3101)

AERODYNAMICS OF SLENDER WINGS AND WING-BODY COMBINATIONS HAVING SWEPT TRAILING EDGES. Harold Mirels. March 1954. ii, 96p. diagrs. (NACA TN 3105)

ION TRACER TECHNIQUE FOR AIRSPEED MEASUREMENT AT LOW DENSITIES. W. B. Kunkel and L. Talbot, University of California. March 1954. 31p. diagrs. (NACA TN 3177)

THE ZERO-LIFT DRAG OF A 60° DELTA-WING-BODY COMBINATION (AGARD MODEL 2) OBTAINED FROM FREE-FLIGHT TESTS BETWEEN MACH NUMBERS OF 0.8 AND 1.7. Robert O. Piland. April 1954. 11p. diagrs., 2 tabs. (NACA TN 3081)

AN EXPERIMENTAL STUDY OF POROSITY CHARACTERISTICS OF PERFORATED MATERIALS IN NORMAL AND PARALLEL FLOW. George M. Stokes, Don D. Davis, Jr. and Thomas B. Sellers. April 1954. 24p. diagrs., photos. (NACA TN 3085. Formerly RM L53H07)

ON THE SOUND FIELD OF A POINT-SHAPED SOUND SOURCE IN UNIFORM TRANSLATORY MOTION. (Über das Schallfeld einer gleichförmig-translatorisch bewegten punkförmigen Schallquelle). H. Hönl. April 1954. 44p. diagrs. (NACA TM 1362. Trans. from Annalen der Physik, issue 5, v. 43, 1943, p. 437-464).

SUBSONIC FLOW (1.1.2.1)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

PRELIMINARY EXPERIMENTS ON FORCES AND MOMENTS OF AN OSCILLATING WING AT HIGH-SUBSONIC SPEEDS. S. A. Clevenson and E. Widmayer, Jr. February 20, 1950. 28p. diagrs., tab. (NACA RM L9K28a) (Declassified from Restricted, 12, 14, 53)

DESIGN OF TWO-DIMENSIONAL CHANNELS WITH PRESCRIBED VELOCITY DISTRIBUTIONS ALONG THE CHANNEL WALLS. John D. Stanitz. 1953. ii, 40p. diagrs., 8 tabs. (NACA Rept. 1115. Formerly TN 2593; TN 2595)

COMPRESSIBLE-FLOW SOLUTIONS FOR THE ACTUATOR DISK. James B. Delano and John L. Crigler. March 1953. 70p. diagrs. (NACA RM L53A07)

SUBSONIC FLOW OF AIR THROUGH A SINGLE-STAGE AND A SEVEN-STAGE COMPRESSOR. Chung-Hua Wu. June 1953. 32p. diagrs., 2 tabs. (NACA TN 2961)

COMPARISON OF SECONDARY FLOWS AND BOUNDARY-LAYER ACCUMULATIONS IN SEVERAL TURBINE NOZZLES. Milton G. Kofskey, Hubert W. Allen and Howard Z. Herzig. August 1953. 58p. diagrs., photos., 3 tabs. (NACA TN 2989)

THEORETICAL PERFORMANCE CHARACTERISTICS OF SHARP-LIP INLETS AT SUBSONIC SPEEDS. Evan A. Fradenburgh and DeMarquis D. Wyatt. September 1953. 21p. diagrs. (NACA TN 3004)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF COOLING ON FRICTION AND ON BOUNDARY-LAYER TRANSITION FOR LOW-SPEED GAS FLOW AT THE ENTRY OF A TUBE. Stephen J. Kline and Ascher H. Shapiro, Massachusetts Institute of Technology. November 1953. 65p. diagrs., tab. (NACA TN 3048)

EXPERIMENTAL INVESTIGATION OF TWO-DIMENSIONAL TUNNEL-WALL INTERFERENCE AT HIGH SUBSONIC SPEEDS. Earl D. Knechtel. December 1953. 13p. diagrs. (NACA TN 3087)

ONE-DIMENSIONAL, COMPRESSIBLE, VISCOUS FLOW RELATIONS APPLICABLE TO FLOW IN A DUCTED HELICOPTER BLADE. John R. Henry. December 1953. 16p. diagrs. (NACA TN 3089)

DENSITY PROFILES OF SUBSONIC BOUNDARY LAYERS ON A FLAT PLATE DETERMINED BY X-RAY AND PRESSURE MEASUREMENTS. Ruth N. Weltmann and Perry W. Kuhns. February 1954. 30p. diagrs., photos. (NACA TN 3098)

ON THE SOUND FIELD OF A POINT-SHAPED SOUND SOURCE IN UNIFORM TRANSLATORY MOTION. (Über das Schallfeld einer gleichförmig-translatorisch bewegten punkförmigen Schallquelle). H. Hönl. April 1954. 44p. diagrs. (NACA TM 1362. Trans. from Annalen der Physik, issue 5, v. 43, 1943, p. 437-464).

WALL INTERFERENCE IN WIND TUNNELS WITH SLOTTED AND POROUS BOUNDARIES AT SUBSONIC SPEEDS. Barrett S. Baldwin, Jr., John B. Turner and Earl D. Knechtel. May 1954. 42p. diagrs. (NACA TN 3176. Formerly RM A53E29)

MIXED FLOW
(1.1.2.2)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

A LIMIT PRESSURE COEFFICIENT AND AN ESTIMATION OF LIMIT FORCES ON AIRFOILS AT SUPERSONIC SPEEDS. John P. Mayer. August 23, 1948. 18p. diagrs. (NACA RM L8F23) (Declassified from Confidential, 1/8/54)

INVESTIGATION OF FLOW CONDITIONS AND THE NATURE OF THE WALL-CONSTRICTION EFFECT NEAR AND AT CHOKING BY MEANS OF THE HYDRAULIC ANALOGY. Clarence W. Matthews and Ray H. Wright. September 1, 1948. 62p. diagrs. (NACA RM L8F17) (Declassified from Restricted, 12/14/53)

PRESSURE DISTRIBUTIONS OVER A WING-FUSELAGE MODEL AT MACH NUMBERS OF 0.4 TO 0.99 AND AT 1.2. Clarence W. Matthews. November 3, 1948. 24p. diagrs. (NACA RM L8H06) (Declassified from Confidential, 1/8/54)

A PRELIMINARY INVESTIGATION OF THE USEFULNESS OF CAMBER IN OBTAINING FAVORABLE AIRFOIL-SECTION DRAG CHARACTERISTICS AT SUPERCRITICAL SPEEDS. Gerald E. Nitzberg, Stewart M. Crandall and Perry P. Polentz. October 7, 1949. 24p. diagrs. (NACA RM A9G20) (Declassified from Restricted, 12/14/53)

ANALYTICAL INVESTIGATION OF FLOW THROUGH HIGH-SPEED MIXED-FLOW TURBINE. Warner L. Stewart. October 1951. 22p. diagrs., photo. (NACA RM E51H06)

AN EXPERIMENTAL INVESTIGATION OF TRANSONIC FLOW PAST TWO-DIMENSIONAL WEDGE AND CIRCULAR-ARC SECTIONS USING A MACH-ZEHNDER INTERFEROMETER. Arthur Earl Bryson, Jr., California Institute of Technology. 1952. ii, 33p. diagrs., photos. (NACA Rept. 1094. Formerly TN 2560)

THE LANGLEY ANNULAR TRANSONIC TUNNEL. Louis W. Habel, James H. Henderson and Mason F. Miller. 1952. ii, 10p. diagrs., photos. (NACA Rept. 1106. Formerly RM L8A23; RM L50E18)

EXPERIMENTAL INVESTIGATION OF FLOW IN AN ANNULAR CASCADE OF TURBINE NOZZLE BLADES OF CONSTANT DISCHARGE ANGLE. Milton G. Kofskey, Harold E. Rohlik and Daniel E. Monroe. March 1952. 28p. diagrs., photos. (NACA RM E52A09)

AN EXPERIMENTAL INVESTIGATION OF THE ZERO-LIFT PRESSURE DISTRIBUTION OVER A WEDGE AIRFOIL IN CLOSED, SLOTTED, AND OPEN-THROAT TUNNELS AT TRANSONIC MACH NUMBERS. William J. Nelson and Frederick Bloetscher. June 16, 1952. 34p. diagrs., photos. (NACA RM L52C18) (Declassified from Confidential, 3/10/54)

A METHOD FOR STABILIZING SHOCK WAVES IN CHANNEL FLOW BY MEANS OF A SURGE CHAMBER. Stanford E. Neice, Cornell University. June 1953. 46p. photos., diagrs. (NACA TN 2694)

STUDIES OF THE USE OF FREON-12 AS A WIND-TUNNEL TESTING MEDIUM. Albert E. von Doenhoff, Albert L. Braslow and Milton A. Schwartzberg. August 1953. 57p. diagrs. (NACA TN 3000)

LINEARIZED POTENTIAL THEORY OF PROPELLER INDUCTION IN A COMPRESSIBLE FLOW. Robert E. Davidson. September 1953. 47p. diagrs., 5 tabs. (NACA TN 2983)

THE FLOW ABOUT A SECTION OF A FINITE-ASPECT-RATIO NACA 0015 AIRFOIL ON A TRANSONIC BUMP. Jack A. Mellenthin. October 1953. 30p. diagrs., photos., tab. (NACA TN 3036)

A FLIGHT INVESTIGATION OF LAMINAR AND TURBULENT BOUNDARY LAYERS PASSING THROUGH SHOCK WAVES AT FULL-SCALE REYNOLDS NUMBERS. Eziaslav N. Harrin. December 1953. 20p. diagrs., photos. (NACA TN 3056)

THEORETICAL PREDICTION OF PRESSURE DISTRIBUTIONS ON NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter and Alberta Alksne. March 1954. (ii), 84p. diagrs. (NACA TN 3096)

INVESTIGATION OF A SLAT IN SEVERAL DIFFERENT POSITIONS ON AN NACA 64A010 AIRFOIL FOR A WIDE RANGE OF SUBSONIC MACH NUMBERS. John A. Axelson and George L. Stevens. March 1954. 35p. diagrs., photos., 7 tabs. (NACA TN 3129)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

SUPERSONIC FLOW
(1.1.2.3)

PRELIMINARY TESTS TO DETERMINE THE MAXIMUM LIFT OF WINGS AT SUPERSONIC SPEEDS. James J. Gallagher and James N. Mueller. December 11, 1947. 41p. diagrs., photos., 3 tabs. (NACA RM L7J10) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. I - TRIANGULAR WINGS OF ASPECT RATIO 2. Walter G. Vincenti, Jack N. Nielsen and Frederick H. Matteson. December 19, 1947. 83p. diagrs., photos., tab. (NACA RM A7I10) (Declassified from Confidential, 10/5/53)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

Supersonic Flow - Compressible (Cont.)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. III - UNSWEPT WINGS OF DIFFERING ASPECT RATIO AND TAPER RATIO. Jack N. Nielsen, Frederick H. Matteson and Walter G. Vincenti. June 21, 1948. 64p. diagrs., photos., tab. (NACA RM A8E06) (Declassified from Confidential, 10/5/53)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. II - SWEPT WINGS OF TAPER RATIO 0.5. Walter G. Vincenti, Milton D. Van Dyke and Frederick H. Matteson. June 28, 1948. 56p. diagrs., photos., 2 tabs. (NACA RM A8E05) (Declassified from Confidential, 10/5/53)

A LIMIT PRESSURE COEFFICIENT AND AN ESTIMATION OF LIMIT FORCES ON AIRFOILS AT SUPERSONIC SPEEDS. John P. Mayer. August 23, 1948. 18p. diagrs. (NACA RM L8F23) (Declassified from Confidential, 1/8/54)

INITIAL EXPERIMENTS ON FLUTTER OF UNSWEPT CANTILEVER WINGS AT MACH NUMBER 1.3. W. J. Tuovila, John E. Baker and Arthur A. Regier. January 6, 1949. 23p. diagrs., photos., 2 tabs. (NACA RM L8J11) (Declassified from Restricted, 12/14/53)

CONTINUATION OF WING FLUTTER INVESTIGATION IN THE TRANSONIC RANGE AND PRESENTATION OF A LIMITED SUMMARY OF FLUTTER DATA. William T. Lauten, Jr. and J. G. Barmby. April 21, 1949. 21p. diagrs., photos., 2 tabs. (NACA RM L9B25b) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF A VARIABLE MASS-FLOW SUPERSONIC NOSE INLET. Clyde Hayes. December 13, 1949. 15p. diagrs., photos. (NACA RM L9J11) (Declassified from Confidential, 1/8/54)

PRELIMINARY INVESTIGATION OF CONSTANT-GEOMETRY, VARIABLE MACH NUMBER, SUPERSONIC TUNNEL WITH POROUS WALLS. William J. Nelson and Paul L. Klevatt. May 3, 1950. 27p. diagrs., photos. (NACA RM L50B01) (Declassified from Confidential, 3/10/54)

PERFORMANCE OF 24-INCH SUPERSONIC AXIAL-FLOW COMPRESSOR IN AIR. III - COMPRESSOR PERFORMANCE WITH INLET GUIDE VANES. Melvin J. Hartmann and Edward R. Tysl. July 10, 1950. 15p. diagrs. (NACA RM E50D27) (Declassified from Restricted, 12/11/53)

AERODYNAMIC CHARACTERISTICS OF NACA RM-10 MISSILE IN 8- BY 6-FOOT SUPERSONIC WIND TUNNEL AT MACH NUMBERS FROM 1.49 TO 1.98. I - PRESENTATION AND ANALYSIS OF PRESSURE MEASUREMENTS (STABILIZING FINS REMOVED). Roger W. Luidens and Paul C. Simon. July 20, 1950. 53p. diagrs., photos. (NACA RM E50D10) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF REFLECTIONS OF OBLIQUE WAVES FROM A POROUS WALL. Don D. Davis, Jr. and George P. Wood. November 9, 1950. 33p. diagrs., photos. (NACA RM L50G19a) (Declassified from Confidential, 3/10/54)

INTERPRETATION OF BOUNDARY-LAYER PRESSURE-RAKE DATA IN FLOW WITH A DETACHED SHOCK. Roger W. Luidens and Robert T. Madden. December 22, 1950. 14p. diagrs., photos. (NACA RM E50I29a) (Declassified from Confidential, 1/8/54)

ARRANGEMENT OF BODIES OF REVOLUTION IN SUPERSONIC FLOW TO REDUCE WAVE DRAG. Morris D. Friedman. December 1951. 17p. diagrs. (NACA RM A51I20)

PRELIMINARY INVESTIGATION OF THE TRANSFER OF HEAT FROM A FLAT PLATE AT A MACH NUMBER OF 1.5. M. A. Emmons, Jr. and R. F. Blanchard. December 1951. 23p. diagrs., photos. (NACA RM L51H31)

AN EXPERIMENTAL INVESTIGATION OF TRANSONIC FLOW PAST TWO-DIMENSIONAL WEDGE AND CIRCULAR-ARC SECTIONS USING A MACH-ZEHNDER INTERFEROMETER. Arthur Earl Bryson, Jr., California Institute of Technology. 1952. ii, 33p. diagrs., photos. (NACA Rept. 1094. Formerly TN 2560)

THE LINEARIZED CHARACTERISTICS METHOD AND ITS APPLICATION TO PRACTICAL NON-LINEAR SUPERSONIC PROBLEMS. Antonio Ferri. 1952. ii, 18p. diagrs. (NACA Rept. 1102. Formerly TN 2515)

EXPERIMENTAL INVESTIGATION OF FLOW IN AN ANNULAR CASCADE OF TURBINE NOZZLE BLADES OF CONSTANT DISCHARGE ANGLE. Milton G. Kofskey, Harold E. Rohlik and Daniel E. Monroe. March 1952. 28p. diagrs., photos. (NACA RM E52A09)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF 30°, 60°, AND 90° CONE CYLINDERS AT MACH NUMBERS BETWEEN 1.5 AND 8.2. Alvin Seiff and Simon C. Sommer. April 1952. 25p. photos., diagrs. (NACA RM A52A14b)

REFLECTION OF SHOCK WAVES FROM SLOTTED WALLS AT MACH NUMBER 1.62. George P. Wood. July 21, 1952. 16p. diagrs., photos. (NACA RM L52E27) (Declassified from Confidential, 3/10/54)

A STUDY OF INVISCID FLOW ABOUT AIRFOILS AT HIGH SUPERSONIC SPEEDS. A. J. Eggers, Jr., Clarence A. Syvertson and Samuel Kraus. 1953. ii 27p. diagrs., 6 tabs. (NACA Rept. 1123. Formerly TN 2646; TN 2729)

THE SIMILARITY LAW FOR HYPERSONIC FLOW AND REQUIREMENTS FOR DYNAMIC SIMILARITY OF RELATED BODIES IN FREE FLIGHT. Frank M. Hamaker, Stanford E. Neice and Thomas J. Wong. 1953. ii, 11p. diagrs. (NACA Rept. 1147. Formerly TN 2443; TN 2631)

A CASCADE - GENERAL-MOMENTUM THEORY OF OPERATION OF A SUPERSONIC PROPELLER ANNULUS. Bernard B. Klawans and Arthur W. Vogeley. January 1953. 25p. diagrs., 2 tabs. (NACA RM L52J06)

SUPERSONIC FLOW PAST OSCILLATING AIRFOILS INCLUDING NONLINEAR THICKNESS EFFECTS. Milton D. Van Dyke. July 1953. 41p. diagrs. (NACA TN 2982)

Supersonic Flow - Compressible (Cont.)

COMPARISON OF SECONDARY FLOWS AND BOUNDARY-LAYER ACCUMULATIONS IN SEVERAL TURBINE NOZZLES. Milton G. Kofskey, Hubert W. Allen and Howard Z. Herzig. August 1953. 58p. diagrs., photos., 3 tabs. (NACA TN 2989)

APPLICATION OF A CHARACTERISTIC BLADE-TO-BLADE SOLUTION TO FLOW IN A SUPERSONIC ROTOR WITH VARYING STREAM-FILAMENT THICKNESS. Eleanor L. Costilow. August 1953. 36p. diagrs., 5 tabs. (NACA TN 2992)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE WAVE DRAG OF SEVEN BOATTAIL BODIES OF REVOLUTION DESIGNED FOR MINIMUM WAVE DRAG. August F. Bromm, Jr. and Julia M. Goodwin. December 1953. 14p. diagrs., photo. (NACA TN 3054)

FLOW PROPERTIES OF STRONG SHOCK WAVES IN XENON GAS AS DETERMINED FOR THERMAL EQUILIBRIUM CONDITIONS. Alexander P. Sabol. December 1953. 29p. diagrs., photos., 2 tabs. (NACA TN 3091)

THE AMES 10- BY 14-INCH SUPERSONIC WIND TUNNEL. A. J. Eggers, Jr. and George J. Nothwang. January 1954. 43p. diagrs., photos., tab. (NACA TN 3095)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

EXPERIMENTAL INVESTIGATION AT A MACH NUMBER OF 2.41 OF AVERAGE SKIN-FRICTION COEFFICIENTS AND VELOCITY PROFILES FOR LAMINAR AND TURBULENT BOUNDARY LAYERS AND AN ASSESSMENT OF PROBE EFFECTS. Robert M. O'Donnell. January 1954. 38p. diagrs., photos. (NACA TN 3122)

PRESENT STATUS OF INFORMATION RELATIVE TO THE PREDICTION OF SHOCK-INDUCED BOUNDARY-LAYER SEPARATION. Roy H. Lange. February 1954 16p. diagrs. (NACA TN 3065)

THEORETICAL SUPERSONIC FORCE AND MOMENT COEFFICIENTS ON A SIDESLIPPING VERTICAL- AND HORIZONTAL-TAIL COMBINATION WITH SUBSONIC LEADING EDGES AND SUPERSONIC TRAILING EDGES. Frank S. Malvestuto, Jr. March 1954. 69p. diagrs., 2 tabs. (NACA TN 3071)

TURBULENT BOUNDARY-LAYER AND SKIN-FRICTION MEASUREMENTS IN AXIAL FLOW ALONG CYLINDERS AT MACH NUMBERS BETWEEN 0.5 AND 3.6. Dean R. Chapman and Robert H. Kester. March 1954. 53p. diagrs., photos., 5 tabs. (NACA TN 3097)

COOLING REQUIREMENTS FOR STABILITY OF LAMINAR BOUNDARY LAYER WITH SMALL PRESSURE GRADIENT AT SUPERSONIC SPEEDS. George M. Low. March 1954. 16p. diagrs., tab. (NACA TN 3103)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

ON THE SOUND FIELD OF A POINT-SHAPED SOUND SOURCE IN UNIFORM TRANSLATORY MOTION. (Über das Schallfeld einer gleichförmig-translatorisch bewegten punkförmigen Schallquelle). H. Hönl. April 1954. 44p. diagrs. (NACA TM 1362. Trans. from Annalen der Physik, issue 5, v. 43, 1943, p. 437-464).

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

A STUDY OF HYPERSONIC SMALL-DISTURBANCE THEORY. Milton D. Van Dyke. May 1954. 51p. diagrs. (NACA TN 3173)

MINIMUM-WAVE-DRAG AIRFOIL SECTIONS FOR ARROW WINGS. Morton Cooper and Frederick C. Grant. May 1954. 26p. diagrs., 5 tabs. (NACA TN 3183)

VISCOUS FLOW (1.1.3)

EXTENSION OF BOUNDARY-LAYER HEAT-TRANSFER THEORY TO COOLED TURBINE BLADES. W. Byron Brown and Patrick L. Donoughe. August 11, 1950. 51p. diagrs., tab. (NACA RM E50F02) (Declassified from Restricted, 12 11 53)

DISPLACEMENT EFFECT OF A THREE-DIMENSIONAL BOUNDARY LAYER. Franklin K. Moore. 1953. ii, 5p. diagrs. (NACA Rept. 1124. Formerly TN 2722)

NEW EXPERIMENTS ON IMPACT-PRESSURE INTERPRETATION IN SUPERSONIC AND SUBSONIC RAREFIED AIR STREAMS. F. S. Sherman. University of California. September 1953. 73p. diagrs., photos., 2 tabs. (NACA TN 2995)

AN EXPERIMENTAL INVESTIGATION OF SECONDARY FLOW IN AN ACCELERATING, RECTANGULAR ELBOW WITH 90° OF TURNING. John D. Stanitz, Walter M. Osborn and John Mizisin. October 1953. 60p. diagrs., photos., 2 tabs. (NACA TN 3015)

LOW-SPEED DRAG OF CYLINDERS OF VARIOUS SHAPES. Noel K. Delany and Norman E. Sorensen. November 1953. 22p. diagrs., photos., tab. (NACA TN 3038)

Viscous Flow (Cont.)

THE RESISTANCE TO AIR FLOW OF POROUS MATERIALS SUITABLE FOR BOUNDARY-LAYER-CONTROL APPLICATIONS USING AREA SUCTION. Robert E. Dannenberg, James A. Weiberg and Bruno J. Gambucci. January 1954. 21p. diagrs., photos., tab. (NACA TN 3094)

USE OF AERODYNAMIC HEATING TO PROVIDE THRUST BY VAPORIZATION OF SURFACE COOLANTS. W. E. Moeckel. February 1954. 37p. diagrs. (NACA TN 3140)

LAMINAR FLOW (1.1.3.1)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF 30°, 60°, AND 90° CONE CYLINDERS AT MACH NUMBERS BETWEEN 1.5 AND 8.2. Alvin Seiff and Simon C. Sommer. April 1952. 25p. photos., diagrs. (NACA RM A52A14b)

AN ANALYSIS OF LAMINAR FREE-CONVECTION FLOW AND HEAT TRANSFER ABOUT A FLAT PLATE PARALLEL TO THE DIRECTION OF THE GENERATING BODY FORCE. Simon Ostrach. APPENDIX B: NUMERICAL SOLUTION OF SIMPLIFIED BOUNDARY-VALUE PROBLEM. Lynn U. Albers. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1111. Formerly TN 2635)

LAMINAR BOUNDARY LAYER ON CONE IN SUPERSONIC FLOW AT LARGE ANGLE OF ATTACK. Franklin K. Moore. Appendix B: NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn Albers. 1953. ii, 13p. diagrs. (NACA Rept. 1132. Formerly TN 2844)

A STUDY OF THE STABILITY OF THE INCOMPRESSIBLE LAMINAR BOUNDARY LAYER ON INFINITE WEDGES. Neal Tetervin. August 1953. 41p. diagrs., 4 tabs. (NACA TN 2976)

HEAT TRANSFER AND SKIN FRICTION BY AN INTEGRAL METHOD IN THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH A STREAMWISE PRESSURE GRADIENT. Ivan E. Beckwith. September 1953. 55p. diagrs., tab. (NACA TN 3005)

DETERMINATION OF BOUNDARY-LAYER TRANSITION REYNOLDS NUMBERS BY SURFACE-TEMPERATURE MEASUREMENT OF A 10° CONE IN VARIOUS NACA SUPERSONIC WIND TUNNELS. Albert O. Ross. October 1953. 26p. diagrs., tab. (NACA TN 3020)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND SMALL PRESSURE GRADIENT. George M. Low. APPENDIX B. NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn U. Albers. October 1953. 68p. diagrs., 7 tabs. (NACA TN 3028)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF COOLING ON FRICTION AND ON BOUNDARY-LAYER TRANSITION FOR LOW-SPEED GAS FLOW AT THE ENTRY OF A TUBE. Stephen J. Kline and Ascher H. Shapiro, Massachusetts Institute of Technology. November 1953. 65p. diagrs., tab. (NACA TN 3048)

FACTORS AFFECTING TRANSITION AT SUPERSONIC SPEEDS. K. R. Czarnecki and Archibald R. Sinclair. November 1953. 13p. diagrs. (NACA RM L53I18a)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE WAVE DRAG OF SEVEN BOATTAIL BODIES OF REVOLUTION DESIGNED FOR MINIMUM WAVE DRAG. August F. Bromm, Jr. and Julia M. Goodwin. December 1953. 14p. diagrs., photo. (NACA TN 3054)

A FLIGHT INVESTIGATION OF LAMINAR AND TURBULENT BOUNDARY LAYERS PASSING THROUGH SHOCK WAVES AT FULL-SCALE REYNOLDS NUMBERS. Eziaslav N. Harrin. December 1953. 20p. diagrs., photos. (NACA TN 3056)

TRANSIENT TEMPERATURE DISTRIBUTIONS IN SIMPLE CONDUCTING BODIES STEADILY HEATED THROUGH A LAMINAR BOUNDARY LAYER. Hermon M. Parker. December 1953. 42p. diagrs. (NACA TN 3058)

EXPERIMENTAL INVESTIGATION AT A MACH NUMBER OF 2.41 OF AVERAGE SKIN-FRICTION COEFFICIENTS AND VELOCITY PROFILES FOR LAMINAR AND TURBULENT BOUNDARY LAYERS AND AN ASSESSMENT OF PROBE EFFECTS. Robert M. O'Donnell. January 1954. 38p. diagrs., photos. (NACA TN 3122)

THE FREE-STREAM BOUNDARIES OF TURBULENT FLOWS. Stanley Corrsin and Alan L. Kistler, Johns Hopkins University. January 1954. 109p. diagrs., photos. (NACA TN 3133)

METHOD FOR CALCULATION OF COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH AXIAL PRESSURE GRADIENT AND HEAT TRANSFER. Paul A. Libby and Morris Morduchow, Polytechnic Institute of Brooklyn. January 1954. 44p. diagrs. (NACA TN 3157)

PRESENT STATUS OF INFORMATION RELATIVE TO THE PREDICTION OF SHOCK-INDUCED BOUNDARY-LAYER SEPARATION. Roy H. Lange. February 1954. 16p. diagrs. (NACA TN 3065)

DENSITY PROFILES OF SUBSONIC BOUNDARY LAYERS ON A FLAT PLATE DETERMINED BY X-RAY AND PRESSURE MEASUREMENTS. Ruth N. Weltmann and Perry W. Kuhns. February 1954. 30p. diagrs., photos. (NACA TN 3098)

COOLING REQUIREMENTS FOR STABILITY OF LAMINAR BOUNDARY LAYER WITH SMALL PRESSURE GRADIENT AT SUPERSONIC SPEEDS. George M. Low. March 1954. 16p. diagrs., tab. (NACA TN 3103)

COMBINED NATURAL- AND FORCED-CONVECTION LAMINAR FLOW AND HEAT TRANSFER OF FLUIDS WITH AND WITHOUT HEAT SOURCES IN CHANNELS WITH LINEARLY VARYING WALL TEMPERATURES. Simon Ostrach. April 1954. 74p. diagrs., 2 tabs. (NACA TN 3141)

NOTE ON THE AERODYNAMIC HEATING OF AN OSCILLATING SURFACE. Simon Ostrach. April 1954. 12p. (NACA TN 3146)

Laminar Flow - Viscous (Cont.)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 23p. diagrs., photos., tab. (NACA TN 3165. Formerly RM L52E29a)

AN EXTENSION OF THE INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 21p. diagrs., photo. (NACA TN 3166. Formerly NACA RM L53B25)

TURBULENT FLOW (1.1.3.2)

INTERPRETATION OF BOUNDARY-LAYER PRESSURE-RAKE DATA IN FLOW WITH A DETACHED SHOCK. Roger W. Luidens and Robert T. Madden. December 22, 1950. 14p. diagrs., photos. (NACA RM E50I29a) (Declassified from Confidential, 1/8/54)

PRELIMINARY STUDY OF CIRCULATION IN AN APPARATUS SUITABLE FOR DETERMINING CORROSIVE EFFECTS OF HOT FLOWING LIQUIDS. Leland G. Desmon and Don R. Mosher. June 1951. 17p. diagrs., photos. (NACA RM E51D12)

EFFECTS OF INLET WALL CONTOUR ON THE PRESSURE RECOVERY OF A 10° 10-INCH-INLET-DIAMETER CONICAL DIFFUSER. Martin R. Copp. September 1951. 29p. diagrs., photos. (NACA RM L51E11a)

PRELIMINARY INVESTIGATION OF THE TRANSFER OF HEAT FROM A FLAT PLATE AT A MACH NUMBER OF 1.5. M. A. Emmons, Jr. and R. F. Blanchard. December 1951. 23p. diagrs., photos. (NACA RM L51H31)

SOME FEATURES OF ARTIFICIALLY THICKENED FULLY DEVELOPED TURBULENT BOUNDARY LAYERS WITH ZERO PRESSURE GRADIENT. P. S. Klebanoff and Z. W. Diehl, National Bureau of Standards. 1952. 27p. diagrs., photos. (NACA Rept. 1110. Formerly TN 2475)

THE EFFECT OF SURFACE ROUGHNESS ON THE PERFORMANCE OF A 23° CONICAL DIFFUSER AT SUBSONIC MACH NUMBERS. Jerome Persh. January 1952. 42p. diagrs., photos. (NACA RM L51K09)

EXPERIMENTAL INVESTIGATION OF FLOW IN AN ANNULAR CASCADE OF TURBINE NOZZLE BLADES OF CONSTANT DISCHARGE ANGLE. Milton G. Kofskey, Harold E. Rohlik and Daniel E. Monroe. March 1952. 28p. diagrs., photos. (NACA RM E52A09)

A PRELIMINARY GUST-TUNNEL INVESTIGATION OF LEADING-EDGE SEPARATION ON SWEPT WINGS. George L. Cahen. June 1952. 12p. photos. (NACA RM L52C20)

SPECTRUM OF TURBULENCE IN A CONTRACTING STREAM. H. S. Ribner and M. Tucker. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1113. Formerly TN 2606)

LAMINAR BOUNDARY LAYER ON CONE IN SUPERSONIC FLOW AT LARGE ANGLE OF ATTACK. Franklin K. Moore. Appendix B: NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn Albers. 1953. ii, 13p. diagrs. (NACA Rept. 1132. Formerly TN 2844)

THE STRUCTURE OF TURBULENCE IN FULLY DEVELOPED PIPE FLOW. John Laufer, National Bureau of Standards. June 1953. 53p. diagrs. (NACA TN 2954)

THE MICROSTRUCTURE OF TURBULENT FLOW. (Mikrostructura turbulentnogo potoka.) A. M. Obukhoff and A. M. Yaglom. June 1953. 41p. diagrs. (NACA TM 1350. Trans. from Prikladnaya Matematika i Mekhanika, v. 15, 1951, p. 3-26).

COMPARISON OF SECONDARY FLOWS AND BOUNDARY-LAYER ACCUMULATIONS IN SEVERAL TURBINE NOZZLES. Milton G. Kofskey, Hubert W. Allen and Howard Z. Herzig. August 1953. 58p. diagrs., photos., 3 tabs. (NACA TN 2989)

MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence. August 1953. 45p. diagrs. (NACA RM E53F19)

ANALYSIS OF TURBULENT HEAT TRANSFER AND FLOW IN THE ENTRANCE REGIONS OF SMOOTH PASSAGES. Robert G. Deissler. October 1953. 88p. diagrs. (NACA TN 3016)

DETERMINATION OF BOUNDARY-LAYER TRANSITION REYNOLDS NUMBERS BY SURFACE-TEMPERATURE MEASUREMENT OF A 10° CONE IN VARIOUS NACA SUPERSONIC WIND TUNNELS. Albert O. Ross. October 1953. 26p. diagrs., tab. (NACA TN 3020)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF LOW-SPEED TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Virgil A. Sandborn. October 1953. 37p. diagrs., photos. (NACA TN 3031)

COUNTING METHODS AND EQUIPMENT FOR MEAN-VALUE MEASUREMENTS IN TURBULENCE RESEARCH. H. W. Liepmann and M. S. Robinson, California Institute of Technology. October 1953. 49p. diagrs., photos. (NACA TN 3037)

ANALOGY BETWEEN MASS AND HEAT TRANSFER WITH TURBULENT FLOW. Edmund E. Callaghan. October 1953. 19p. diagrs. (NACA TN 3045)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF COOLING ON FRICTION AND ON BOUNDARY-LAYER TRANSITION FOR LOW-SPEED GAS FLOW AT THE ENTRY OF A TUBE. Stephen J. Kline and Ascher H. Shapiro, Massachusetts Institute of Technology. November 1953. 65p. diagrs., tab. (NACA TN 3048)

Turbulent Flow - Viscous (Cont.)

AN ANALYTICAL INVESTIGATION OF THE EFFECT OF THE RATE OF INCREASE OF TURBULENT KINETIC ENERGY IN THE STREAM DIRECTION ON THE DEVELOPMENT OF TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Bernard Rashis. November 1953. 30p. diagrs., 2 tabs. (NACA TN 3049)

FACTORS AFFECTING TRANSITION AT SUPERSONIC SPEEDS. K. R. Czarnecki and Archibald R. Sinclair. November 1953. 13p. diagrs. (NACA RM L53I18a)

GUST-TUNNEL INVESTIGATION OF THE EFFECT OF LEADING-EDGE SEPARATION ON THE NORMAL ACCELERATIONS EXPERIENCED BY A 45° SWEPTBACK-WING MODEL IN GUSTS. George L. Cahen. November 1953. 16p. diagrs., photos., tab. (NACA RM L53J07)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE WAVE DRAG OF SEVEN BOATTAIL BODIES OF REVOLUTION DESIGNED FOR MINIMUM WAVE DRAG. August F. Bromm, Jr. and Julia M. Goodwin. December 1953. 14p. diagrs., photo. (NACA TN 3054)

A FLIGHT INVESTIGATION OF LAMINAR AND TURBULENT BOUNDARY LAYERS PASSING THROUGH SHOCK WAVES AT FULL-SCALE REYNOLDS NUMBERS. Eziaslav N. Harrin. December 1953. 20p. diagrs., photos. (NACA TN 3056)

ONE-DIMENSIONAL, COMPRESSIBLE, VISCOUS FLOW RELATIONS APPLICABLE TO FLOW IN A DUCTED HELICOPTER BLADE. John R. Henry. December 1953. 16p. diagrs. (NACA TN 3089)

EFFECT OF SURFACE ROUGHNESS OVER THE DOWNSTREAM REGION OF A 23° CONICAL DIFFUSER. Jerome Persh and Bruce M. Bailey. January 1954. 57p. diagrs., photo. (NACA TN 3066)

CORRELATIONS INVOLVING PRESSURE FLUCTUATIONS IN HOMOGENEOUS TURBULENCE. Mahinder S. Uberoi, Johns Hopkins University. January 1954. 61p. diagrs., 2 tabs. (NACA TN 3116)

EXPERIMENTAL INVESTIGATION AT A MACH NUMBER OF 2.41 OF AVERAGE SKIN-FRICTION COEFFICIENTS AND VELOCITY PROFILES FOR LAMINAR AND TURBULENT BOUNDARY LAYERS AND AN ASSESSMENT OF PROBE EFFECTS. Robert M. O'Donnell. January 1954. 38p. diagrs., photos. (NACA TN 3122)

EFFECT OF VARIOUS ARRANGEMENTS OF TRIANGULAR LEDGES ON THE PERFORMANCE OF A 23° CONICAL DIFFUSER AT SUBSONIC MACH NUMBERS. Jerome Persh and Bruce M. Bailey. January 1954. 36p. diagrs. (NACA TN 3123)

A METHOD FOR ESTIMATING THE EFFECT OF TURBULENT VELOCITY FLUCTUATIONS IN THE BOUNDARY LAYER ON DIFFUSER TOTAL-PRESSURE-LOSS MEASUREMENTS. Jerome Persh and Bruce M. Bailey. January 1954. 16p. diagrs. (NACA TN 3124)

THE FREE-STREAM BOUNDARIES OF TURBULENT FLOWS. Stanley Corrsin and Alan L. Kistler, Johns Hopkins University. January 1954. 109p. diagrs., photos. (NACA TN 3133)

PRESENT STATUS OF INFORMATION RELATIVE TO THE PREDICTION OF SHOCK-INDUCED BOUNDARY-LAYER SEPARATION. Roy H. Lange. February 1954. 16p. diagrs. (NACA TN 3065)

DENSITY PROFILES OF SUBSONIC BOUNDARY LAYERS ON A FLAT PLATE DETERMINED BY X-RAY AND PRESSURE MEASUREMENTS. Ruth N. Weltmann and Perry W. Kuhns. February 1954. 30p. diagrs., photos. (NACA TN 3098)

TURBULENT BOUNDARY-LAYER AND SKIN-FRICTION MEASUREMENTS IN AXIAL FLOW ALONG CYLINDERS AT MACH NUMBERS BETWEEN 0.5 AND 3.6. Dean R. Chapman and Robert H. Kester. March 1954. 53p. diagrs., photos., 5 tabs. (NACA TN 3097)

STATISTICAL STUDY OF TRANSITION-POINT FLUCTUATIONS IN SUPERSONIC FLOW. J. C. Evvard, M. Tucker and W. C. Burgess, Jr. Appendix B. MATHEMATICAL PROCEDURES. Hugo Heermann. March 1954. 32p. diagrs., photos., tab. (NACA TN 3100)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 23p. diagrs., photos., tab. (NACA TN 3165. Formerly RM L52E29a)

AN EXTENSION OF THE INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 21p. diagrs., photo. (NACA TN 3166. Formerly NACA RM L53B25)

ANALYSIS OF TURBULENT HEAT TRANSFER, MASS TRANSFER, AND FRICTION IN SMOOTH TUBES AT HIGH PRANDTL AND SCHMIDT NUMBERS. Robert G. Deissler. May 1954. 53p. diagrs. (NACA TN 3145)

JET MIXING
(1.1.3.3)

CHARACTERISTICS OF A HOT JET DISCHARGED FROM A JET-PROPULSION ENGINE. William A. Fleming. December 27, 1946. 20p. diagrs. (NACA RM E6L27a) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. I - NACELLE WITH OFFSET AIR INLET. Edmund E. Callaghan, Robert S. Ruggeri and Richard P. Krebs. July 9, 1948. 22p. diagrs. (NACA RM E8D13) (Declassified from Restricted, 12/14/53)

Jet Mixing - Viscous (Cont.)

CORRELATION OF ISOTHERMAL CONTOURS FORMED BY PENETRATION OF JET OF LIQUID AMMONIA DIRECTED NORMAL TO AN AIR STREAM. David B. Fenn. February 1954. 38p. diagrs., tab. (NACA RM E53J08)

AERODYNAMICS WITH HEAT (1.1.4)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. II - METHODS FOR DETERMINING COOLING-AIR-FLOW CHARACTERISTICS. Herman H. Ellerbrock, Jr. June 7, 1950. 20p. diagrs. (NACA RM E50A06) (Declassified from Restricted, 12/11/53)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. I - METHODS FOR DETERMINING HEAT-TRANSFER CHARACTERISTICS. Herman H. Ellerbrock, Jr. and Robert R. Ziemer. June 12, 1950. 48p. diagrs. (NACA RM E50A05) (Declassified from Restricted, 12/11/53)

NUMERICAL SOLUTION OF EQUATIONS FOR ONE-DIMENSIONAL GAS FLOW IN ROTATING COOLANT PASSAGES. W. Byron Brown and Richard J. Rossbach. June 26, 1950. 119p. diagrs., tabs. (NACA RM E50E04) (Declassified from Restricted, 12/11/53)

A STUDY OF INVISCID FLOW ABOUT AIRFOILS AT HIGH SUPERSONIC SPEEDS. A. J. Eggers, Jr., Clarence A. Syvertson and Samuel Kraus. 1953. ii 27p. diagrs., 6 tabs. (NACA Rept. 1123. Formerly TN 2646; TN 2729)

FACTORS AFFECTING TRANSITION AT SUPERSONIC SPEEDS. K. R. Czarnecki and Archibald R. Sinclair. November 1953. 13p. diagrs. (NACA RM L53I18a)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 23p. diagrs., photos., tab. (NACA TN 3165. Formerly RM L52E29a)

AN EXTENSION OF THE INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 21p. diagrs., photo. (NACA TN 3166. Formerly NACA RM L53B25)

HEATING (1.1.4.1)

DETERMINATION AND USE OF THE LOCAL RECOVERY FACTOR FOR CALCULATING THE EFFECTIVE GAS TEMPERATURE FOR TURBINE BLADES. Jack B. Esgar and Alfred L. Lea. September 1951. 30p. diagrs., photos. (NACA RM E51G10)

EXPERIMENTAL INVESTIGATION OF RADOME ICING AND ICING PROTECTION. James P. Lewis and Robert J. Blade. January 1953. 60p. diagrs., photos. (NACA RM E52J31)

ANALYTICAL INVESTIGATION OF FUEL TEMPERATURES AND FUEL-EVAPORATION LOSSES ENCOUNTERED IN LONG-RANGE HIGH-ALTITUDE SUPERSONIC FLIGHT. Richard J. McCafferty. August 1953. 38p. diagrs., 2 tabs. (NACA RM E53E25)

TRANSIENT TEMPERATURE DISTRIBUTIONS IN SIMPLE CONDUCTING BODIES STEADILY HEATED THROUGH A LAMINAR BOUNDARY LAYER. Hermon M. Parker. December 1953. 42p. diagrs. (NACA TN 3058)

FLOW PROPERTIES OF STRONG SHOCK WAVES IN XENON GAS AS DETERMINED FOR THERMAL EQUILIBRIUM CONDITIONS. Alexander P. Sabol. December 1953. 29p. diagrs., photos., 2 tabs. (NACA TN 3091)

USE OF AERODYNAMIC HEATING TO PROVIDE THRUST BY VAPORIZATION OF SURFACE COOLANTS. W. E. Moeckel. February 1954. 37p. diagrs. (NACA TN 3140)

NOTE ON THE AERODYNAMIC HEATING OF AN OSCILLATING SURFACE. Simon Ostrach. April 1954. 12p. (NACA TN 3146)

HEAT TRANSFER (1.1.4.2)

EXTENSION OF BOUNDARY-LAYER HEAT-TRANSFER THEORY TO COOLED TURBINE BLADES. W. Byron Brown and Patrick L. Donoughe. August 11, 1950. 51p. diagrs., tab. (NACA RM E50F02) (Declassified from Restricted, 12/11/53)

ANALYTICAL DETERMINATION OF LOCAL SURFACE HEAT-TRANSFER COEFFICIENTS FOR COOLED TURBINE BLADES FROM MEASURED METAL TEMPERATURES. W. Byron Brown and Jack B. Esgar. August 11, 1950. 66p. diagrs. (NACA RM E50F09) (Declassified from Restricted, 12/11/53)

CALCULATIONS OF LAMINAR HEAT TRANSFER AROUND CYLINDERS OF ARBITRARY CROSS SECTION AND TRANSPIRATION-COOLED WALLS WITH APPLICATION TO TURBINE BLADE COOLING. E. R. G. Eckert and John N. B. Livingood. September 1951. 57p. diagrs., 2 tabs. (NACA RM E51F22)

Heat Transfer - Aerodynamic (Cont.)

DETERMINATION AND USE OF THE LOCAL RECOVERY FACTOR FOR CALCULATING THE EFFECTIVE GAS TEMPERATURE FOR TURBINE BLADES. Jack B. Esgar and Alfred L. Lea. September 1951. 30p. diagrs., photos. (NACA RM E51G10)

PRELIMINARY INVESTIGATION OF THE TRANSFER OF HEAT FROM A FLAT PLATE AT A MACH NUMBER OF 1.5. M. A. Emmons, Jr. and R. F. Blanchard. December 1951. 23p. diagrs., photos. (NACA RM L51H31)

COMPARISON OF CALCULATED AND EXPERIMENTAL TEMPERATURES OF WATER-COOLED TURBINE BLADES. Eugene F. Schum, John C. Freche and William J. Stelpflug. July 1952. 36p. diagrs., 3 tabs. (NACA RM E52D21)

AN ANALYSIS OF LAMINAR FREE-CONVECTION FLOW AND HEAT TRANSFER ABOUT A FLAT PLATE PARALLEL TO THE DIRECTION OF THE GENERATING BODY FORCE. Simon Ostrach. APPENDIX B: NUMERICAL SOLUTION OF SIMPLIFIED BOUNDARY-VALUE PROBLEM. Lynn U. Albers. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1111. Formerly TN 2635)

METHOD FOR CALCULATION OF LAMINAR HEAT TRANSFER IN AIR FLOW AROUND CYLINDERS OF ARBITRARY CROSS SECTION (INCLUDING LARGE TEMPERATURE DIFFERENCES AND TRANSPIRATION COOLING). E. R. G. Eckert and John N. B. Livingood. 1953. ii, 29p. diagrs. (NACA Rept. 1118. Formerly TN 2733)

COMPARISON OF SEVERAL METHODS OF CYCLIC DE-ICING OF A GAS-HEATED AIRFOIL. Vernon H. Gray and Dean T. Bowden. June 1953. 66p. diagrs., photos., 2 tabs. (NACA RM E53C27)

MEASUREMENTS OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR AIR FLOWING IN A TUBE OF LENGTH-DIAMETER RATIO OF 15 AT HIGH SURFACE TEMPERATURES. Walter F. Weiland and Warren H. Lowdermilk. July 1953. 19p. diagrs. (NACA RM E53E04)

PRELIMINARY RESULTS OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL SPINNER. U. von Glahn. August 1953. 35p. diagrs., photo., 2 tabs. (NACA RM E53F02)

HEAT TRANSFER AND SKIN FRICTION BY AN INTEGRAL METHOD IN THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH A STREAMWISE PRESSURE GRADIENT. Ivan E. Beckwith. September 1953. 55p. diagrs., tab. (NACA TN 3005)

COMPARISON OF EFFECTIVENESS OF CONVECTION-, TRANSPIRATION-, AND FILM-COOLING METHODS WITH AIR AS COOLANT. E. R. G. Eckert and John N. B. Livingood. October 1953. 52p. diagrs. (NACA TN 3010)

THE COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH HEAT TRANSFER AND SMALL PRESSURE GRADIENT. George M. Low. APPENDIX B. NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn U. Albers. October 1953. 68p. diagrs., 7 tabs. (NACA TN 3028)

ANALOGY BETWEEN MASS AND HEAT TRANSFER WITH TURBULENT FLOW. Edmund E. Callaghan. October 1953. 19p. diagrs. (NACA TN 3045)

MEASUREMENT OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR FLOW OF AIR IN NONCIRCULAR DUCTS AT HIGH SURFACE TEMPERATURES. Warren H. Lowdermilk, Walter F. Weiland, Jr. and John N. B. Livingood. January 1954. 26p. diagrs. (NACA RM E53J07)

EXPERIMENTAL DETERMINATION OF LOCAL AND MEAN COEFFICIENTS OF HEAT TRANSFER FOR TURBULENT FLOW IN PIPES. (Eksperimental'noe Opredelenie Lokal'nykh i Srednikh Koeffitsientov Teplootdachi Pri Turbulentnom Techenii Zhidkosti v Trubakh). I. T. Aladyev. February 1954. 18p. diagrs., 3 tabs. (NACA TM 1356. Trans. from Izvestiya Akademii Nauk SSSR, Otdelenie Tekhnicheskikh Nauk, no. 11, 1951, p. 1669-1681).

COOLING REQUIREMENTS FOR STABILITY OF LAMINAR BOUNDARY LAYER WITH SMALL PRESSURE GRADIENT AT SUPERSONIC SPEEDS. George M. Low. March 1954. 16p. diagrs., tab. (NACA TN 3103)

EXPERIMENTAL INVESTIGATION OF SUBLIMATION OF ICE AT SUBSONIC AND SUPERSONIC SPEEDS AND ITS RELATION TO HEAT TRANSFER. Willard D. Coles and Robert S. Ruggeri. March 1954. 29p. diagrs., photo. (NACA TN 3104)

COMBINED NATURAL- AND FORCED-CONVECTION LAMINAR FLOW AND HEAT TRANSFER OF FLUIDS WITH AND WITHOUT HEAT SOURCES IN CHANNELS WITH LINEARLY VARYING WALL TEMPERATURES. Simon Ostrach. April 1954. 74p. diagrs., 2 tabs. (NACA TN 3141)

ADDITIONS OF HEAT (1.1.4.3)

INDIRECT METHODS FOR OBTAINING RAM-JET EXHAUST-GAS TEMPERATURE APPLIED TO FUEL-METERING CONTROL. Eugene Perchonok, William H. Sterbentz and Stanley H. Moore. January 14, 1948. 36p. diagrs. (NACA RM E7H27) (Declassified from Confidential, 1/8/54)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. I - NACELLE WITH OFFSET AIR INLET. Edmund E. Callaghan, Robert S. Ruggeri and Richard P. Krebs. July 9, 1948. 22p. diagrs. (NACA RM E8D13) (Declassified from Restricted, 12/14/53)

Addition of Heat (Cont.)

EXPERIMENTAL DETERMINATION OF THE SUBSONIC PERFORMANCE OF A RAM-JET UNIT CONTAINING THIN-PLATE BURNERS. John R. Henry. June 29, 1949. 54p. diagrs., photos. (NACA RM L9B17) (Declassified from Confidential, 1/8/54)

PRELIMINARY INVESTIGATION OF THE TRANSFER OF HEAT FROM A FLAT PLATE AT A MACH NUMBER OF 1.5. M. A. Emmons, Jr. and R. F. Blanchard. December 1951. 23p. diagrs., photos. (NACA RM L51H31)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF COOLING ON FRICTION AND ON BOUNDARY-LAYER TRANSITION FOR LOW-SPEED GAS FLOW AT THE ENTRY OF A TUBE. Stephen J. Kline and Ascher H. Shapiro, Massachusetts Institute of Technology. November 1953. 65p. diagrs., tab. (NACA TN 3048)

ONE-DIMENSIONAL, COMPRESSIBLE, VISCOUS FLOW RELATIONS APPLICABLE TO FLOW IN A DUCTED HELICOPTER BLADE. John R. Henry. December 1953. 16p. diagrs. (NACA TN 3089)

METHOD FOR CALCULATION OF COMPRESSIBLE LAMINAR BOUNDARY LAYER WITH AXIAL PRESSURE GRADIENT AND HEAT TRANSFER. Paul A. Libby and Morris Morduchow, Polytechnic Institute of Brooklyn. January 1954. 44p. diagrs. (NACA TN 3157)

MEASUREMENT OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR FLOW OF AIR IN NONCIRCULAR DUCTS AT HIGH SURFACE TEMPERATURES. Warren H. Lowdermilk, Walter F. Weiland, Jr. and John N. B. Livingood. January 1954. 26p. diagrs. (NACA RM E53J07)

FLOW OF RAREFIED GASES (1.1.5)

NEW EXPERIMENTS ON IMPACT-PRESSURE INTERPRETATION IN SUPERSONIC AND SUBSONIC RAREFIED AIR STREAMS. F. S. Sherman. University of California. September 1953. 73p. diagrs., photos., 2 tabs. (NACA TN 2995)

ION TRACER TECHNIQUE FOR AIRSPEED MEASUREMENT AT LOW DENSITIES. W. B. Kunkel and L. Talbot, University of California. March 1954. 31p. diagrs. (NACA TN 3177)

Wings
(1.2)

WING SECTIONS
(1.2.1)

AN EMPIRICALLY DERIVED BASIS FOR CALCULATING THE AREA, RATE, AND DISTRIBUTION OF WATER-DROP IMPINGEMENT ON AIRFOILS. Norman R. Bergrun. 1952. ii, 21p. diagrs., 6 tabs. (NACA Rept. 1107)

SECTION THEORY
(1.2.1.1)

COMPARATIVE DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF 6-PERCENT-THICK AIRFOILS OF SYMMETRICAL DOUBLE-WEDGE AND CIRCULAR-ARC SECTIONS FROM TESTS BY THE NACA WING-FLOW METHOD. Norman S. Silsby. April 8, 1947. 10p. diagrs. (NACA RM L7B20) (Declassified from Confidential, 1/8/54)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

A STUDY OF INVISCID FLOW ABOUT AIRFOILS AT HIGH SUPERSONIC SPEEDS. A. J. Eggers, Jr. Clarence A. Syvertson and Samuel Kraus. 1953. ii 27p. diagrs., 6 tabs. (NACA Rept. 1123. Formerly TN 2646; TN 2729)

THEORETICAL PREDICTION OF PRESSURE DISTRIBUTIONS ON NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter and Alberta Alksne. March 1954. (ii), 84p. diagrs. (NACA TN 3096)

A DESIGN STUDY OF LEADING-EDGE INLETS FOR UNSWEPT WINGS. Robert E. Dannenberg. March 1954. 56p. diagrs., photos., 3 tabs. (NACA TN 3126. Formerly RM A9K02b)

MINIMUM-WAVE-DRAG AIRFOIL SECTIONS FOR ARROW WINGS. Morton Cooper and Frederick C. Grant. May 1954. 26p. diagrs., 5 tabs. (NACA TN 3183)

SECTION VARIABLES
(1.2.1.2)

TESTS OF THE NACA 64_1-012 AND 64_1A012 AIRFOILS AT HIGH SUBSONIC MACH NUMBERS. W. F. Lindsey and Milton D. Humphreys. July 9, 1948. 19p. diagrs., tab. (NACA RM L8D23) (Declassified from Restricted, 12/14/53)

AN EMPIRICAL METHOD FOR ESTIMATING TRAILING-EDGE LOADS AT TRANSONIC SPEEDS. T. H. Skopinski. October 6, 1949. 43p. diagrs., tab. (NACA RM L9H08) (Declassified from Confidential, 1/8/54)

THE USE OF TWO-DIMENSIONAL SECTION DATA TO ESTIMATE THE LOW-SPEED WING LIFT COEFFICIENT AT WHICH SECTION STALL FIRST APPEARS ON A SWEPT WING. Ralph L. Maki. July 1951. 37p. diagrs., photo., 4 tabs. (NACA RM A51E15)

Camber
(1.2.1.2.1)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60° DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

A PRELIMINARY INVESTIGATION OF THE USEFULNESS OF CAMBER IN OBTAINING FAVORABLE AIRFOIL-SECTION DRAG CHARACTERISTICS AT SUPERCRITICAL SPEEDS. Gerald E. Nitzberg, Stewart M. Crandall and Perry P. Polentz. October 7, 1949. 24p. diagrs. (NACA RM A9G20) (Declassified from Restricted, 12/14/53)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF CAMBER ON THE VARIATION WITH MACH NUMBER OF THE AERODYNAMIC CHARACTERISTICS OF A 10-PERCENT-THICK MODIFIED NACA FOUR-DIGIT-SERIES AIRFOIL SECTION. Albert D. Hemenover. September 1953. 34p. diagrs., tab. (NACA TN 2998)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

Thickness
(1.2.1.2.2)

FREE-FLIGHT INVESTIGATION OF CONTROL EFFECTIVENESS OF FULL-SPAN 0.2-CHORD PLAIN AILERONS AT HIGH SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE SOME EFFECTS OF SECTION THICKNESS AND WING SWEEPBACK. Carl A. Sandahl and Alfred A. Marino. May 29, 1947. 14p. diagrs., photos., tab. (NACA RM L7D02)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF FOUR THIN NACA 63-SERIES AIRFOILS. Richard J. Ilk. December 31, 1947. 53p. diagrs., photo., tab. (NACA RM A7J23. Now issued as TN 2670) (Declassified from Restricted, 12/14/53)

PRELIMINARY CORRELATION OF THE EFFECT OF COMPRESSIBILITY ON THE LOCATION OF THE SECTION AERODYNAMIC CENTER AT SUBCRITICAL SPEEDS. Edward C. Polhamus. November 3, 1948. 7p. diagr., tab. (NACA RM L8D14) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS AT HIGH AND LOW SUBSONIC MACH NUMBERS OF FOUR NACA 6-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK FROM -2° TO 31°. Homer B. Wilson, Jr. and Elmer A. Horton. June 1953. 48p. diagrs., photo., tab. (NACA RM L53C20)

SUPERSONIC FLOW PAST OSCILLATING AIRFOILS INCLUDING NONLINEAR THICKNESS EFFECTS. Milton D. Van Dyke. July 1953. 41p. diagrs. (NACA TN 2982)

THEORETICAL PREDICTION OF PRESSURE DISTRIBUTIONS ON NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter and Alberta Aksne. March 1954. (ii), 84p. diagrs. (NACA TN 3096)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

EFFECTS OF LEADING-EDGE RADIUS AND MAXIMUM THICKNESS-CHORD RATIO ON THE VARIATION WITH MACH NUMBER OF THE AERODYNAMIC CHARACTERISTICS OF SEVERAL THIN NACA AIRFOIL SECTIONS. Robert E. Berggren and Donald J. Graham. April 1954. 65p. diagrs., 7 tabs. (NACA TN 3172. Formerly RM A50D04)

Thickness Distribution
(1.2.1.2.3)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF FOUR THIN NACA 63-SERIES AIRFOILS. Richard J. Ilk. December 31, 1947. 53p. diagrs., photo., tab. (NACA RM A7J23. Now issued as TN 2670) (Declassified from Restricted, 12/14/53)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS OF THE NACA 0010 AND 0010-64 AIRFOIL SECTIONS AT HIGH SUBSONIC MACH NUMBERS. Perry P. Polentz. October 7, 1949. 23p. diagrs., tab. (NACA RM A9G19) (Declassified from Restricted, 12/14/53)

A PRELIMINARY INVESTIGATION OF THE USEFULNESS OF CAMBER IN OBTAINING FAVORABLE AIRFOIL-SECTION DRAG CHARACTERISTICS AT SUPERCRITICAL SPEEDS. Gerald E. Nitzberg, Stewart M. Crandall and Perry P. Polentz. October 7, 1949. 24p. diagrs. (NACA RM A9G20) (Declassified from Restricted, 12/14/53)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

TESTS OF THE NACA 0010-1.50 40/1.051 AIRFOIL SECTION AT HIGH SUBSONIC MACH NUMBERS. Albert D. Hemenover. September 1953. 18p. diagrs., tab. (NACA RM A53G09)

EFFECTS OF LEADING-EDGE RADIUS AND MAXIMUM THICKNESS-CHORD RATIO ON THE VARIATION WITH MACH NUMBER OF THE AERODYNAMIC CHARACTERISTICS OF SEVERAL THIN NACA AIRFOIL SECTIONS. Robert E. Berggren and Donald J. Graham. April 1954. 65p. diagrs., 7 tabs. (NACA TN 3172. Formerly RM A50D04)

MINIMUM-WAVE-DRAG AIRFOIL SECTIONS FOR ARROW WINGS. Morton Cooper and Frederick C. Grant. May 1954. 26p. diagrs., 5 tabs. (NACA TN 3183)

Inlets and Exits
(1.2.1.2.4)

THE DEVELOPMENT OF JET-ENGINE NACELLES FOR A HIGH-SPEED BOMBER DESIGN. Robert E. Dannenberg. August 29, 1947. 37p. diagrs., photos., tab. (NACA RM A7D10) (Declassified from Restricted, 12/14/53)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPT WING WITH LEADING-EDGE INLETS. Robert E. Dannenberg. August 1951. 48p. diagrs., photos., tab. (NACA RM A51E29)

A DESIGN STUDY OF LEADING-EDGE INLETS FOR UNSWEPT WINGS. Robert E. Dannenberg. March 1954. 56p. diagrs., photos., 3 tabs. (NACA TN 3126. Formerly RM A9K02b)

Surface Conditions
(1.2.1.2.5)

BOUNDARY-LAYER MEASUREMENTS ON SEVERAL POROUS MATERIALS WITH SUCTION APPLIED. George B. McCullough and Bruno J. Gambucci. June 1952. 26p. diagrs., photos., tab. (NACA RM A52D01b)

EFFECT OF ICE AND FROST FORMATIONS ON DRAG OF NACA 65_1-212 AIRFOIL FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Vernon H. Gray and Uwe H. von Glahn. June 1953. 68p. diagrs., photos. (NACA TN 2962)

AERODYNAMIC CHARACTERISTICS AT HIGH AND LOW SUBSONIC MACH NUMBERS OF FOUR NACA 6-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK FROM -2° TO 31°. Homer B. Wilson, Jr. and Elmer A. Horton. June 1953. 48p. diagrs., photo., tab. (NACA RM L53C20)

IMPINGEMENT OF WATER DROPLETS ON WEDGES AND DIAMOND AIRFOILS AT SUPERSONIC SPEEDS. John S. Serafini. July 1953. 62p. diagrs. (NACA TN 2971)

IMPINGEMENT OF WATER DROPLETS ON NACA 65A004 AIRFOIL AND EFFECT OF CHANGE IN AIRFOIL THICKNESS FROM 12 TO 4 PERCENT AT 4° ANGLE OF ATTACK. Rinaldo J. Brun, Helen M. Gallagher and Dorothea E. Vogt. November 1953. 45p. diagrs., tab. (NACA TN 3047)

EFFECT OF ICE FORMATIONS ON SECTION DRAG OF SWEPT NACA 63A-009 AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Uwe H. von Glahn and Vernon H. Gray. March 1954. 59p. diagrs., photos. (NACA RM E53J30)

DESIGNATED PROFILES
(1.2.1.3)

DRAG MEASUREMENTS OF SYMMETRICAL CIRCULAR-ARC AND NACA 65-009 RECTANGULAR AIRFOILS HAVING AN ASPECT RATIO OF 2.7 AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Sidney R. Alexander. March 7, 1947. 10p. diagrs., photo. (NACA RM L6J14) (Declassified from Confidential, 11/10/53)

COMPARATIVE DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF 6-PERCENT-THICK AIRFOILS OF SYMMETRICAL DOUBLE-WEDGE AND CIRCULAR-ARC SECTIONS FROM TESTS BY THE NACA WING-FLOW METHOD. Norman S. Silsby. April 8, 1947. 10p. diagrs. (NACA RM L7B20) (Declassified from Confidential, 1/8/54)

EFFECTS OF A FUSELAGE ON THE AERODYNAMIC CHARACTERISTICS OF A 42° SWEPTBACK WING AT REYNOLDS NUMBERS TO 8,000,000. Reino J. Salmi, D. William Conner and Robert R. Graham. June 10, 1947. 32p. diagrs., photos. (NACA RM L7E13) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPT-BACK WING WITH ASPECT RATIO OF 3.5 AND NACA 2S-50(05)-50(05) AIRFOIL SECTIONS. Anthony J. Proterra. August 4, 1947. 21p. diagrs., photo. (NACA RM L7C11) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF FOUR THIN NACA 63-SERIES AIRFOILS. Richard J. Ilk. December 31, 1947. 53p. diagrs., photo., tab. (NACA RM A7J23. Now issued as TN 2670) (Declassified from Restricted, 12/14/53)

THE LANGLEY ANNULAR TRANSONIC TUNNEL. Louis W. Habel, James H. Henderson and Mason F. Miller. 1952. ii, 10p. diagrs., photos. (NACA Rept. 1106. Formerly RM L8A23; RM L50E18)

AERODYNAMIC CHARACTERISTICS AT HIGH AND LOW SUBSONIC MACH NUMBERS OF FOUR NACA 6-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK FROM -2° TO 31°. Homer B. Wilson, Jr. and Elmer A. Horton. June 1953. 48p. diagrs., photo., tab. (NACA RM L53C20)

EFFECT OF TYPE OF POROUS SURFACE AND SUCTION VELOCITY DISTRIBUTION ON THE CHARACTERISTICS OF A 10.5-PERCENT-THICK AIRFOIL WITH AREA SUCTION. Robert E. Dannenberg and James A. Weiberg. December 1953. 59p. diagrs., photos., 5 tabs. (NACA TN 3093)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

HIGH-LIFT DEVICES
(1.2.1.4)

SURVEY OF TWO-DIMENSIONAL DATA ON PITCHING-MOMENT CHANGES NEAR MAXIMUM LIFT CAUSED BY DEFLECTION OF HIGH-LIFT DEVICES. Jerold M. Bidwell and Jones F. Cahill. December 2, 1949. 13p. diagrs., tab. (NACA RM L9J03) (Declassified from Restricted, 12/14/53)

Plain Flaps
(1.2.1.4.1)

THE EFFECTIVENESS AT HIGH SPEEDS OF A 10-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Richard J. Ilk. June 14, 1948. 26p. diagrs., tab. (NACA RM A8A21) (Declassified from Restricted, 12/14/53)

Plain Flaps (Cont.)

AN EMPIRICAL METHOD FOR ESTIMATING TRAILING-EDGE LOADS AT TRANSONIC SPEEDS. T. H. Skopinski. October 6, 1949. 43p. diagrs., tab. (NACA RM L9H08) (Declassified from Confidential, 1/8/54)

THE EFFECTIVENESS AT HIGH SUBSONIC MACH NUMBERS OF A 20-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Louis S. Stivers, Jr. March 1954. 15p. diagrs. (NACA TN 3127)

Split Flaps
(1.2.1.4.2)

LIFT AND PITCHING MOMENT AT LOW SPEEDS OF THE NACA 64A010 AIRFOIL SECTION EQUIPPED WITH VARIOUS COMBINATIONS OF A LEADING-EDGE SLAT, LEADING-EDGE FLAP, SPLIT FLAP, AND DOUBLE-SLOTTED FLAP. John A. Kelly and Nora-Lee F. Hayter. September 1953. 45p. diagrs., photos., 2 tabs. (NACA TN 3007)

THE EFFECTIVENESS AT HIGH SUBSONIC MACH NUMBERS OF A 20-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Louis S. Stivers, Jr. March 1954. 15p. diagrs. (NACA TN 3127)

Slotted Flaps
(1.2.1.4.3)

POSITIONING INVESTIGATION OF SINGLE SLOTTED FLAPS ON A 47.7° SWEPTBACK WING AT REYNOLDS NUMBERS OF 4.0×10^6 AND 6.0×10^6. Stanley H. Spooner and Ernst F. Mollenberg. October 9, 1950. 36p. diagrs., photo., 3 tabs. (NACA RM L50H29) (Declassified from Restricted, 12/11/53)

LIFT AND PITCHING MOMENT AT LOW SPEEDS OF THE NACA 64A010 AIRFOIL SECTION EQUIPPED WITH VARIOUS COMBINATIONS OF A LEADING-EDGE SLAT, LEADING-EDGE FLAP, SPLIT FLAP, AND DOUBLE-SLOTTED FLAP. John A. Kelly and Nora-Lee F. Hayter. September 1953. 45p. diagrs., photos., 2 tabs. (NACA TN 3007)

Leading-Edge Flaps
(1.2.1.4.4)

PRESSURE-DISTRIBUTION MEASUREMENTS OVER AN EXTENSIBLE LEADING-EDGE FLAP ON TWO WINGS HAVING LEADING-EDGE SWEEP OF 42° AND 52°. Reino J. Salmi. March 7, 1949. 36p. diagrs., photos. (NACA RM L9A18) (Declassified from Restricted, 12/14/53)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60° DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

LIFT AND PITCHING MOMENT AT LOW SPEEDS OF THE NACA 64A010 AIRFOIL SECTION EQUIPPED WITH VARIOUS COMBINATIONS OF A LEADING-EDGE SLAT, LEADING-EDGE FLAP, SPLIT FLAP, AND DOUBLE-SLOTTED FLAP. John A. Kelly and Nora-Lee F. Hayter. September 1953. 45p. diagrs., photos., 2 tabs. (NACA TN 3007)

Slots and Slats
(1.2.1.4.5)

LIFT AND PITCHING MOMENT AT LOW SPEEDS OF THE NACA 64A010 AIRFOIL SECTION EQUIPPED WITH VARIOUS COMBINATIONS OF A LEADING-EDGE SLAT, LEADING-EDGE FLAP, SPLIT FLAP, AND DOUBLE-SLOTTED FLAP. John A. Kelly and Nora-Lee F. Hayter. September 1953. 45p. diagrs., photos., 2 tabs. (NACA TN 3007)

INVESTIGATION OF A SLAT IN SEVERAL DIFFERENT POSITIONS ON AN NACA 64A010 AIRFOIL FOR A WIDE RANGE OF SUBSONIC MACH NUMBERS. John A. Axelson and George L. Stevens. March 1954. 35p. diagrs., photos., 7 tabs. (NACA TN 3129)

CONTROLS
(1.2.1.5)

Flap Type
(1.2.1.5.1)

PRELIMINARY RESULTS OF A FLIGHT INVESTIGATION TO DETERMINE THE EFFECT OF NEGATIVE FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing, and George E. Cooper. December 16, 1947. 22p. diagrs., photos. (NACA RM A7I26) (Declassified from Restricted, 12/14/53)

THE EFFECTIVENESS AT HIGH SPEEDS OF A 10-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Richard J. Ilk. June 14, 1948. 26p. diagrs., tab. (NACA RM A8A21) (Declassified from Restricted, 12/14/53)

THE EFFECTIVENESS AT HIGH SUBSONIC MACH NUMBERS OF A 20-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Louis S. Stivers, Jr. March 1954. 15p. diagrs. (NACA TN 3127)

Spoiler
(1.2.1.5.2)

THE EFFECTIVENESS AT HIGH SUBSONIC MACH NUMBERS OF A 20-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Louis S. Stivers, Jr. March 1954. 15p. diagrs. (NACA TN 3127)

BOUNDARY LAYER (1.2.1.6)

AN ANALYTICAL INVESTIGATION OF THE EFFECT OF THE RATE OF INCREASE OF TURBULENT KINETIC ENERGY IN THE STREAM DIRECTION ON THE DEVELOPMENT OF TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Bernard Rashis. November 1953. 30p. diagrs., 2 tabs. (NACA TN 3049)

Characteristics (1.2.1.6.1)

BOUNDARY-LAYER MEASUREMENTS ON SEVERAL POROUS MATERIALS WITH SUCTION APPLIED. George B. McCullough and Bruno J. Gambucci. June 1952. 26p. diagrs., photos., tab. (NACA RM A52D01b)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF LOW-SPEED TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Virgil A. Sandborn. October 1953. 37p. diagrs., photos. (NACA TN 3031)

EFFECT OF TYPE OF POROUS SURFACE AND SUCTION VELOCITY DISTRIBUTION ON THE CHARACTERISTICS OF A 10.5-PERCENT-THICK AIRFOIL WITH AREA SUCTION. Robert E. Dannenberg and James A. Weiberg. December 1953. 59p. diagrs., photos., 5 tabs. (NACA TN 3093)

Control (1.2.1.6.2)

BOUNDARY-LAYER MEASUREMENTS ON SEVERAL POROUS MATERIALS WITH SUCTION APPLIED. George B. McCullough and Bruno J. Gambucci. June 1952. 26p. diagrs., photos., tab. (NACA RM A52D01b)

EFFECT OF TYPE OF POROUS SURFACE AND SUCTION VELOCITY DISTRIBUTION ON THE CHARACTERISTICS OF A 10.5-PERCENT-THICK AIRFOIL WITH AREA SUCTION. Robert E. Dannenberg and James A. Weiberg. December 1953. 59p. diagrs., photos., 5 tabs. (NACA TN 3093)

THE RESISTANCE TO AIR FLOW OF POROUS MATERIALS SUITABLE FOR BOUNDARY-LAYER-CONTROL APPLICATIONS USING AREA SUCTION. Robert E. Dannenberg, James A. Weiberg and Bruno J. Gambucci. January 1954. 21p. diagrs., photos., tab. (NACA TN 3094)

A FLIGHT INVESTIGATION OF THE PRACTICAL PROBLEMS ASSOCIATED WITH POROUS-LEADING-EDGE SUCTION. Paul A. Hunter and Harold I. Johnson. February 1954. 42p. diagrs., photos., 4 tabs. (NACA TN 3062)

REYNOLDS NUMBER EFFECTS (1.2.1.7)

EXPERIMENTAL AERODYNAMIC DERIVATIVES OF A SINUSOIDALLY OSCILLATING AIRFOIL IN TWO-DIMENSIONAL FLOW. Robert L. Halfman, Massachusetts Institute of Technology. 1952. ii, 44p. diagrs., photo., 19 tabs. (NACA Rept. 1108. Formerly TN 2465)

AERODYNAMIC CHARACTERISTICS AT HIGH AND LOW SUBSONIC MACH NUMBERS OF FOUR NACA 6-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK FROM -2° TO 31°. Homer B. Wilson, Jr. and Elmer A. Horton. June 1953. 48p. diagrs., photo., tab. (NACA RM L53C20)

LIFT AND PITCHING MOMENT AT LOW SPEEDS OF THE NACA 64A010 AIRFOIL SECTION EQUIPPED WITH VARIOUS COMBINATIONS OF A LEADING-EDGE SLAT, LEADING-EDGE FLAP, SPLIT FLAP, AND DOUBLE-SLOTTED FLAP. John A. Kelly and Nora-Lee F. Hayter. September 1953. 45p. diagrs., photos., 2 tabs. (NACA TN 3007)

MACH NUMBER EFFECTS (1.2.1.8)

COMPARATIVE DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF 6-PERCENT-THICK AIRFOILS OF SYMMETRICAL DOUBLE-WEDGE AND CIRCULAR-ARC SECTIONS FROM TESTS BY THE NACA WING-FLOW METHOD. Norman S. Silsby. April 8, 1947. 10p. diagrs. (NACA RM L7B20) (Declassified from Confidential, 1/8/54)

PRELIMINARY RESULTS OF A FLIGHT INVESTIGATION TO DETERMINE THE EFFECT OF NEGATIVE FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. December 16, 1947. 22p. diagrs., photos. (NACA RM A7I26) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF FOUR THIN NACA 63-SERIES AIRFOILS. Richard J. Ilk. December 31, 1947. 53p. diagrs., photo., tab. (NACA RM A7J23. Now issued as TN 2670) (Declassified from Restricted, 12/14/53)

THE EFFECTIVENESS AT HIGH SPEEDS OF A 10-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Richard J. Ilk. June 14, 1948. 26p. diagrs., tab. (NACA RM A8A21) (Declassified from Restricted, 12/14/53)

TESTS OF THE NACA 64_1-012 AND 64_1A012 AIRFOILS AT HIGH SUBSONIC MACH NUMBERS. W. F. Lindsey and Milton D. Humphreys. July 9, 1948. 19p. diagrs., tab. (NACA RM L8D23) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF FLOW CONDITIONS AND THE NATURE OF THE WALL-CONSTRICTION EFFECT NEAR AND AT CHOKING BY MEANS OF THE HYDRAULIC ANALOGY. Clarence W. Matthews and Ray H. Wright. September 1, 1948. 62p. diagrs. (NACA RM L8F17) (Declassified from Restricted, 12/14/53)

Mach Number Effects - Wing Sections (Cont.)

PRELIMINARY CORRELATION OF THE EFFECT OF COMPRESSIBILITY ON THE LOCATION OF THE SECTION AERODYNAMIC CENTER AT SUB-CRITICAL SPEEDS. Edward C. Polhamus. November 3, 1948. 7p. diagr., tab. (NACA RM L8D14) (Declassified from Restricted, 12/14/53)

AN EMPIRICAL METHOD FOR ESTIMATING TRAILING-EDGE LOADS AT TRANSONIC SPEEDS. T. H. Skopinski. October 6, 1949. 43p. diagrs., tab. (NACA RM L9H08) (Declassified from Confidential, 1/8/54)

COMPARISON OF THE AERODYNAMIC CHARACTERISTICS OF THE NACA 0010 AND 0010-64 AIRFOIL SECTIONS AT HIGH SUBSONIC MACH NUMBERS. Perry P. Polentz. October 7, 1949. 23p. diagrs., tab. (NACA RM A9G19) (Declassified from Restricted, 12/14/53)

A PRELIMINARY INVESTIGATION OF THE USEFULNESS OF CAMBER IN OBTAINING FAVORABLE AIRFOIL-SECTION DRAG CHARACTERISTICS AT SUPERCRITICAL SPEEDS. Gerald E. Nitzberg, Stewart M. Crandall and Perry P. Polentz. October 7, 1949. 24p. diagrs. (NACA RM A9G20) (Declassified from Restricted, 12/14/53)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

AN EXPERIMENTAL INVESTIGATION OF TRANSONIC FLOW PAST TWO-DIMENSIONAL WEDGE AND CIRCULAR-ARC SECTIONS USING A MACH-ZEHNDER INTERFEROMETER. Arthur Earl Bryson, Jr., California Institute of Technology. 1952. ii, 33p. diagrs., photos. (NACA Rept. 1094. Formerly TN 2560)

AN EXPERIMENTAL INVESTIGATION OF THE ZERO-LIFT PRESSURE DISTRIBUTION OVER A WEDGE AIRFOIL IN CLOSED, SLOTTED, AND OPEN-THROAT TUNNELS AT TRANSONIC MACH NUMBERS. William J. Nelson and Frederick Bloetscher. June 16, 1952. 34p. diagrs., photos. (NACA RM L52C18) (Declassified from Confidential, 3/10/54)

A STUDY OF INVISCID FLOW ABOUT AIRFOILS AT HIGH SUPERSONIC SPEEDS. A. J. Eggers, Jr., Clarence A. Syvertson and Samuel Kraus. 1953. ii 27p. diagrs., 6 tabs. (NACA Rept. 1123. Formerly TN 2646; TN 2729)

AERODYNAMIC CHARACTERISTICS AT HIGH AND LOW SUBSONIC MACH NUMBERS OF FOUR NACA 6-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK FROM -2° TO 31°. Homer B. Wilson, Jr. and Elmer A. Horton. June 1953. 48p. diagrs., photo., tab. (NACA RM L53C20)

THE EFFECTS OF CAMBER ON THE VARIATION WITH MACH NUMBER OF THE AERODYNAMIC CHARACTERISTICS OF A 10-PERCENT-THICK MODIFIED NACA FOUR-DIGIT-SERIES AIRFOIL SECTION. Albert D. Hemenover. September 1953. 34p. diagrs., tab. (NACA TN 2998)

TESTS OF THE NACA 0010-1.50 40/1.051 AIRFOIL SECTION AT HIGH SUBSONIC MACH NUMBERS. Albert D. Hemenover. September 1953. 18p. diagrs., tab. (NACA RM A53G09)

THE FLOW ABOUT A SECTION OF A FINITE-ASPECT-RATIO NACA 0015 AIRFOIL ON A TRANSONIC BUMP. Jack A. Mellenthin. October 1953. 30p. diagrs., photos., tab. (NACA TN 3036)

EXPERIMENTAL INVESTIGATION OF TWO-DIMENSIONAL TUNNEL-WALL INTERFERENCE AT HIGH SUBSONIC SPEEDS. Earl D. Knechtel. December 1953. 13p. diagrs. (NACA TN 3087)

THEORETICAL PREDICTION OF PRESSURE DISTRIBUTIONS ON NONLIFTING AIRFOILS AT HIGH SUBSONIC SPEEDS. John R. Spreiter and Alberta Alksne. March 1954. (ii), 84p. diagrs. (NACA TN 3096)

THE EFFECTIVENESS AT HIGH SUBSONIC MACH NUMBERS OF A 20-PERCENT-CHORD PLAIN TRAILING-EDGE FLAP ON THE NACA 65-210 AIRFOIL SECTION. Louis S. Stivers, Jr. March 1954. 15p. diagrs. (NACA TN 3127)

INVESTIGATION OF A SLAT IN SEVERAL DIFFERENT POSITIONS ON AN NACA 64A010 AIRFOIL FOR A WIDE RANGE OF SUBSONIC MACH NUMBERS. John A. Axelson and George L. Stevens. March 1954. 35p. diagrs., photos., 7 tabs. (NACA TN 3129)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

EFFECTS OF LEADING-EDGE RADIUS AND MAXIMUM THICKNESS-CHORD RATIO ON THE VARIATION WITH MACH NUMBER OF THE AERODYNAMIC CHARACTERISTICS OF SEVERAL THIN NACA AIRFOIL SECTIONS. Robert E. Berggren and Donald J. Graham. April 1954. 65p. diagrs., 7 tabs. (NACA TN 3172. Formerly RM A50D04)

WAKE
(1.2.1.9)

EFFECT OF ICE AND FROST FORMATIONS ON DRAG OF NACA 65_1-212 AIRFOIL FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Vernon H. Gray and Uwe H. von Glahn. June 1953. 68p. diagrs., photos. (NACA TN 2962)

EFFECT OF ICE FORMATIONS ON SECTION DRAG OF SWEPT NACA 63A-009 AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Uwe H. von Glahn and Vernon H. Gray. March 1954. 59p. diagrs., photos. (NACA RM E53J30)

COMPLETE WINGS
(1.2.2)

DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF NACA 65-009 AIRFOILS MOUNTED ON A FREELY FALLING BODY TO DETERMINE THE EFFECTS OF SWEEPBACK AND ASPECT RATIO. Charles W. Mathews and Jim Rogers Thompson. January 22, 1947. 14p. diagrs., photos. (NACA RM L6K08c) (Declassified from Confidential, 11/10/53)

DRAG MEASUREMENTS OF SYMMETRICAL CIRCULAR-ARC AND NACA 65-009 RECTANGULAR AIRFOILS HAVING AN ASPECT RATIO OF 2.7 AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Sidney R. Alexander. March 7, 1947. 10p. diagrs , photo. (NACA RM L6J14) (Declassified from Confidential, 11/10/53)

CHORDWISE AND SPANWISE LOADINGS MEASURED AT LOW SPEEDS ON A LARGE TRIANGULAR WING HAVING AN ASPECT RATIO OF 2 AND A THIN, SUBSONIC-TYPE AIRFOIL SECTION. David Graham. March 13, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A50A04a) (Declassified from Restricted, 12/11/53)

THEORETICAL INVESTIGATION OF THE SUPERSONIC LIFT AND DRAG OF THIN, SWEPTBACK WINGS WITH INCREASED SWEEP NEAR THE ROOT. Doris Cohen and Morris D. Friedman. June 1953. 51p. diagrs. (NACA TN 2959)

WING THEORY
(1.2.2.1)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. III - UNSWEPT WINGS OF DIFFERING ASPECT RATIO AND TAPER RATIO. Jack N. Nielsen, Frederick H. Matteson and Walter G. Vincenti. June 21, 1948. 64p. diagrs., photos., tab. (NACA RM A8E06) (Declassified from Confidential, 10/5/53)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. II - SWEPT WINGS OF TAPER RATIO 0.5. Walter G. Vincenti, Milton D. Van Dyke and Frederick H. Matteson. June 28, 1948. 56p. diagrs., photos., 2 tabs. (NACA RM A8E05) (Declassified from Confidential, 10/5/53)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

LOW-SPEED PITCHING DERIVATIVES OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Alex Goodman and Byron M. Jaquet. April 17, 1950. 25p. diagrs., photos., 2 tabs. (NACA RM L50C02) (Declassified from Restricted, 12/11/53)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

A FINITE-STEP METHOD FOR THE CALCULATION OF SPAN LOADINGS OF UNUSUAL PLAN FORMS. George S. Campbell. July 16, 1951. 34p. diagrs., 4 tabs. (NACA RM L50L13) (Declassified from Confidential, 3/10/54)

CALCULATED AERODYNAMIC LOADINGS OF M, W, AND Λ WINGS IN INCOMPRESSIBLE FLOW. Franklin W. Diederich and W. Owen Latham. August 30, 1951. 58p. diagrs., tab. (NACA RM L51E29) (Declassified from Confidential, 3/10/54)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

METHOD FOR CALCULATING LIFT DISTRIBUTIONS FOR UNSWEPT WINGS WITH FLAPS OR AILERONS BY USE OF NONLINEAR SECTION LIFT DATA. James C. Sivells and Gertrude C. Westrick. 1952. ii, 25p. diagrs., 13 tabs. (NACA Rept. 1090. Formerly TN 2283)

THE LINEARIZED CHARACTERISTICS METHOD AND ITS APPLICATION TO PRACTICAL NONLINEAR SUPERSONIC PROBLEMS. Antonio Ferri. 1952. ii, 18p. diagrs. (NACA Rept. 1102. Formerly TN 2515)

CHORDWISE AND COMPRESSIBILITY CORRECTIONS TO SLENDER-WING THEORY. Harvard Lomax and Loma Sluder. 1952. ii, 19p. diagrs., 4 tabs. (NACA Rept. 1105. Formerly TN 2295)

A COMPARISON OF THE SPANWISE LOADING CALCULATED BY VARIOUS METHODS WITH EXPERIMENTAL LOADINGS OBTAINED ON A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT A REYNOLDS NUMBER OF 4.0×10^{6}. William C. Schneider. January 1952. 32p. diagrs., tab. (NACA RM L51G30)

RECIPROCITY RELATIONS IN AERODYNAMICS. Max. A. Heaslet and John R. Spreiter. 1953. ii, 16p. diagrs. (NACA Rept. 1119. Formerly TN 2700)

ESTIMATION OF FORCES AND MOMENTS DUE TO ROLLING FOR SEVERAL SLENDER-TAIL CONFIGURATIONS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Frank S. Malvestuto, Jr. July 1953. 71p. diagrs. (NACA TN 2955)

THE CALCULATED AND EXPERIMENTAL INCREMENTAL LOADS AND MOMENTS PRODUCED BY SPLIT FLAPS OF VARIOUS SPANS AND SPANWISE LOCATIONS ON A 45° SWEPTBACK WING OF ASPECT RATIO 8. H. Neale Kelly. September 1953. 35p. diagrs., photo. (NACA RM L53F12)

Theory - Complete Wings (Cont.)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

THE PLANE PROBLEM OF THE FLAPPING WING. (Das ebene problem des schlagenden flugels). Walter Birnbaum. January 1954. 38p. diagrs., tab. (NACA TM 1364. Trans. from Zeitschrift für augewandte Mathematik und Mechanik, v.4, no.4, August 1924, p.277-292).

AERODYNAMICS OF SLENDER WINGS AND WING-BODY COMBINATIONS HAVING SWEPT TRAILING EDGES. Harold Mirels. March 1954. ii, 96p. diagrs. (NACA TN 3105)

MINIMUM-WAVE-DRAG AIRFOIL SECTIONS FOR ARROW WINGS. Morton Cooper and Frederick C. Grant. May 1954. 26p. diagrs., 5 tabs. (NACA TN 3183)

WING VARIABLES
(1.2.2.2)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. I - TRIANGULAR WINGS OF ASPECT RATIO 2. Walter G. Vincenti, Jack N. Nielsen and Frederick H. Matteson. December 19, 1947. 83p. diagrs., photos., tab. (NACA RM A7I10) (Declassified from Confidential, 10/5/53)

A FINITE-STEP METHOD FOR THE CALCULATION OF SPAN LOADINGS OF UNUSUAL PLAN FORMS. George S. Campbell. July 16, 1951. 34p. diagrs., 4 tabs. (NACA RM L50L13) (Declassified from Confidential, 3/10/54)

Profiles
(1.2.2.2.1)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING VARIOUS ASPECT RATIOS AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Warren A. Tucker and Robert L. Nelson. April 22, 1947. 15p. diagrs., photos. (NACA RM L7C05) (Declassified from Confidential, 1/8/54)

YAW CHARACTERISTICS AND SIDEWASH ANGLES OF A 42° SWEPTBACK CIRCULAR-ARC WING WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT A REYNOLDS NUMBER OF 5,300,000. Reino J. Salmi and James E. Fitzpatrick. December 10, 1947. 38p. diagrs., photos., tab. (NACA RM L7I30) (Declassified from Restricted, 12/14/53)

PRELIMINARY RESULTS OF A FLIGHT INVESTIGATION TO DETERMINE THE EFFECT OF NEGATIVE FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. December 16, 1947. 22p. diagrs., photos. (NACA RM A7I26) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. I - CHARACTERISTICS OF A PLAIN WING. Ben H. Johnson, Jr. June 2, 1948. 37p. diagrs., photo. (NACA RM A8D07) (Declassified from Restricted, 12/14/53)

EFFECT OF LEADING-EDGE HIGH-LIFT DEVICES AND SPLIT FLAPS ON THE MAXIMUM-LIFT AND LATERAL CHARACTERISTICS OF A RECTANGULAR WING OF ASPECT RATIO 3.4 WITH CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 2.9×10^6 TO 8.4×10^6. Roy H. Lange and Ralph W. May, Jr. November 10, 1948. 70p. diagrs., photos. (NACA RM L8D30) (Declassified from Restricted, 12/14/53)

FLIGHT INVESTIGATIONS AT LOW SUPERSONIC SPEEDS TO DETERMINE THE EFFECTIVENESS OF CONES AND A WEDGE IN REDUCING THE DRAG OF ROUND-NOSE BODIES AND AIRFOILS. Sidney R. Alexander. March 3, 1949. 15p. diagrs., photos. (NACA RM L8L07a) (Declassified from Confidential, 1/8/54)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60° DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton. March 20, 1950. 32p. diagrs., photos., tab. (NACA RM A50A10) (Declassified from Restricted, 12/11/53)

LOW-SPEED PITCHING DERIVATIVES OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Alex Goodman and Byron M. Jaquet. April 17, 1950. 25p. diagrs., photos., 2 tabs. (NACA RM L50C02) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF CAMBER AND TWIST ON THE AERODYNAMIC LOADING AND STALLING CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton and Joseph K. Dew. January 24, 1951. 40p. diagrs., photo., tab. (NACA RM A50J24) (Declassified from Restricted, 12/11/53)

Profiles - Complete Wings (Cont.)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

EFFECTS OF DOUBLE-SLOTTED FLAPS AND LEADING-EDGE MODIFICATIONS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH AND WITHOUT CAMBER AND TWIST. Harry A. James and Joseph K. Dew. July 1951. 37p. diagrs., photo., 3 tabs. (NACA RM A51D18)

EXPERIMENTAL INVESTIGATION OF BASE PRESSURE ON BLUNT-TRAILING-EDGE WINGS AT SUPERSONIC VELOCITIES. Dean R. Chapman, William R. Wimbrow and Robert H. Kester. 1952. ii, 19p. diagrs., photos., tab. (NACA Rept. 1109. Formerly TN 2611)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING LEADING-EDGE MODIFICATIONS AND SEVERAL OUTBOARD FIN ARRANGEMENTS ON THE STATIC STABILITY CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR WING. H. Clyde McLemore. January 1952. 64p. diagrs., photo., tab. (NACA RM L51J05)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

INVESTIGATION AT LOW SPEED OF THE DOWNWASH, SIDEWASH, AND WAKE CHARACTERISTICS BEHIND A LARGE-SCALE TRIANGULAR WING, INCLUDING THE EFFECTS OF YAW, FULL-SPAN TRAILING-EDGE FLAPS, AND TWO LEADING-EDGE MODIFICATIONS. Edward F. Whittle, Jr. and John G. Hawes. October 27, 1952. 65p. diagrs., photos., tab. (NACA RM L52H19)

Aspect Ratio
(1.2.2.2.2)

DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF NACA 65-009 AIRFOILS MOUNTED ON A FREELY FALLING BODY TO DETERMINE THE EFFECTS OF SWEEPBACK AND ASPECT RATIO. Charles W. Mathews and Jim Rogers Thompson. January 22, 1947. 14p. diagrs., photos. (NACA RM L6K08c) (Declassified from Confidential, 11/10/53)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING ASPECT RATIOS OF 1.5 AND 2.7 AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Sidney R. Alexander and Ellis Katz. February 24, 1947. 19p. diagrs., photos. (NACA RM L6J16) (Declassified from Confidential, 10/21/53)

HIGH-SPEED WIND-TUNNEL TESTS OF A 1/16-SCALE MODEL OF THE D-558 RESEARCH AIRPLANE. LIFT AND DRAG CHARACTERISTICS OF THE D-558-I AND VARIOUS WING AND TAIL CONFIGURATIONS. John B. Wright and Donald L. Loving. April 18, 1947. 43p. diagrs., 2 tabs. (NACA RM L6J09) (Declassified from Restricted, 12/14/53)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING VARIOUS ASPECT RATIOS AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Warren A. Tucker and Robert L. Nelson. April 22, 1947. 15p. diagrs., photos. (NACA RM L7C05) (Declassified from Confidential, 1/8/54)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. III - UNSWEPT WINGS OF DIFFERING ASPECT RATIO AND TAPER RATIO. Jack N. Nielsen, Frederick H. Matteson and Walter G. Vincenti. June 21, 1948. 64p. diagrs., photos., tab. (NACA RM A8E06) (Declassified from Confidential, 10/5/53)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE CHARACTERISTICS OF AN UNSWEPT WING OF ASPECT RATIO 4.01 IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat and Maurice S. Cahn. November 8, 1949. 32p. diagrs., 2 tabs. (NACA RM L9H23) (Declassified from Restricted, 12/14/53)

LOW-SPEED PRESSURE-DISTRIBUTION AND FLOW INVESTIGATION FOR A LARGE PITCH AND YAW RANGE OF THREE LOW-ASPECT-RATIO POINTED WINGS HAVING LEADING EDGE SWEPT BACK 60° AND BICONVEX SECTIONS. Ralph W. May, Jr. and John G. Hawes. November 18, 1949. 109p. diagrs., photos., tab. (NACA RM L9J07) (Declassified from Restricted, 12/14/53)

LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS WITH ASPECT RATIOS OF 5.1 AND 6.0 AT REYNOLDS NUMBERS UP TO 10 x 10^6. Reino J. Salmi and Robert J. Carros. March 30, 1950. 25p. diagrs., photo. (NACA RM L50A04) (Declassified from Restricted, 12/7/53)

LOW-SPEED PITCHING DERIVATIVES OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Alex Goodman and Byron M. Jaquet. April 17, 1950. 25p. diagrs., photos., 2 tabs. (NACA RM L50C02) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF ASPECT RATIO AND MACH NUMBER ON THE FLUTTER OF CANTILEVER WINGS. E. Widmayer, Jr., W. T. Lauten, Jr. and S. A. Clevenson. June 1, 1950. 20p. diagrs., 2 tabs. (NACA RM L50C15a) (Declassified from Restricted, 12/11/53)

EFFECTS OF LEADING-EDGE DEVICES AND TRAILING-EDGE FLAPS ON LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS OF ASPECT RATIOS 5.1 AND 6.0 AT A REYNOLDS NUMBER OF 6.0 x 10^6. Reino J. Salmi. August 30, 1950. 105p. diagrs., photos., tab. (NACA RM L50F20) (Declassified from Restricted, 12/7/53)

Aspect Ratio - Complete Wings (Cont.)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT WINGS HAVING NACA 65A006 AIRFOIL SECTIONS. (Revised) Jones F. Cahill and Stanley M. Gottlieb. October 17, 1950. 63p. diagrs., photos. (NACA RM L50F16. Formerly RM L9J20) (Declassified from Restricted, 12 11 53)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

CHORDWISE AND COMPRESSIBILITY CORRECTIONS TO SLENDER-WING THEORY. Harvard Lomax and Lorna Sluder. 1952. ii, 19p. diagrs., 4 tabs. (NACA Rept, 1105. Formerly TN 2295)

METHOD OF ESTIMATING THE STICK-FIXED LONGITUDINAL STABILITY OF WING-FUSELAGE CONFIGURATIONS HAVING UNSWEPT OR SWEPT WINGS. Milton D. McLaughlin. January 1952. 41p. diagrs., 3 tabs. (NACA RM L51J23)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

SOME EFFECTS OF FREQUENCY ON THE CONTRIBUTION OF A VERTICAL TAIL TO THE FREE AERODYNAMIC DAMPING OF A MODEL OSCILLATING IN YAW. John D. Bird, Lewis R. Fisher and Sadie M. Hubbard. 1953. ii, 17p. diagrs., photo. (NACA Rept. 1130. Formerly TN 2657)

EFFECTS OF FINITE SPAN ON THE SECTION CHARACTERISTICS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 6. Lynn W. Hunton. September 1953. 32p. diagrs. (NACA TN 3008. Formerly RM A52A10)

CALCULATED SPANWISE LIFT DISTRIBUTIONS AND AERODYNAMIC INFLUENCE COEFFICIENTS FOR UNSWEPT WINGS IN SUBSONIC FLOW. Franklin W. Diederich and Martin Zlotnick. September 1953. 120p. diagrs., 11 tabs. (Tables of F matrices to be used with TN 3014 are published separately) (NACA TN 3014)

A PRELIMINARY STUDY OF THE PROBLEM OF DESIGNING HIGH-SPEED AIRPLANES WITH SATISFACTORY INHERENT DAMPING OF THE DUTCH ROLL OSCILLATION. John P. Campbell and Marion O. McKinney, Jr. October 1953. 40p. diagrs., 4 tabs. (NACA TN 3035)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING THE LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING FINITE WINGS IN SUBSONIC FLOW. Charles E. Watkins, Harry L. Runyan and Donald S. Woolston. January 1954. 44p. (NACA TN 3131)

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00 AND 0.25 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen and Victor L. Vaughan, Jr. March 1954. 64p. diagrs., photos. (NACA TN 3079)

LIFT AND MOMENT COEFFICIENTS EXPANDED TO THE SEVENTH POWER OF FREQUENCY FOR OSCILLATING RECTANGULAR WINGS IN SUPERSONIC FLOW AND APPLIED TO A SPECIFIC FLUTTER PROBLEM. Herbert C. Nelson, Ruby A. Rainey and Charles E. Watkins. April 1954. 53p. diagrs. (NACA TN 3076)

Sweep
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DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF NACA 65-009 AIRFOILS MOUNTED ON A FREELY FALLING BODY TO DETERMINE THE EFFECTS OF SWEEPBACK AND ASPECT RATIO. Charles W. Mathews and Jim Rogers Thompson. January 22, 1947. 14p. diagrs., photos. (NACA RM L6K08c) (Declassified from Confidential, 11/10/53)

AN INVESTIGATION OF THE EFFECTS OF SWEEP ON THE CHARACTERISTICS OF A HIGH-ASPECT-RATIO WING IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. February 14, 1947. 74p. diagrs., photos., 4 tabs. (NACA RM L6J01a) (Declassified from Restricted, 8/14/53)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING ASPECT RATIOS OF 1.5 AND 2.7 AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Sidney R. Alexander and Ellis Katz. February 24, 1947. 19p. diagrs., photos. (NACA RM L6J16) (Declassified from Confidential, 10/21/53)

FREE-FALL MEASUREMENTS AT TRANSONIC VELOCITIES OF THE DRAG OF A WING-BODY CONFIGURATION CONSISTING OF A 45° SWEPT-BACK WING MOUNTED FORWARD OF THE MAXIMUM DIAMETER ON A BODY OF FINENESS RATIO 12. Charles W. Mathews and Jim Rogers Thompson. April 2, 1947. 18p. diagrs., photo. (NACA RM L6L26) (Declassified from Confidential, 11/10/53)

HIGH-SPEED WIND-TUNNEL TESTS OF A 1/16-SCALE MODEL OF THE D-558 RESEARCH AIRPLANE. LIFT AND DRAG CHARACTERISTICS OF THE D-558-1 AND VARIOUS WING AND TAIL CONFIGURATIONS. John B. Wright and Donald L. Loving. April 18, 1947. 43p. diagrs., 2 tabs. (NACA RM L6J09) (Declassified from Restricted, 12/14/53)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING VARIOUS ASPECT RATIOS AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Warren A. Tucker and Robert L. Nelson. April 22, 1947. 15p. diagrs., photos. (NACA RM L7C05) (Declassified from Confidential, 1/8/54)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

FREE-FLIGHT INVESTIGATION OF CONTROL EFFECTIVENESS OF FULL-SPAN 0.2-CHORD PLAIN AILERONS AT HIGH SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE SOME EFFECTS OF SECTION THICKNESS AND WING SWEEPBACK. Carl A. Sandahl and Alfred A. Marino. May 29, 1947. 14p. diagrs., photos., tab. (NACA RM L7D02)

SOME PRESSURE-DISTRIBUTION MEASUREMENTS ON A SWEPT WING AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. J. Ford Johnston and Edward C. B. Danforth. June 6, 1947. 21p. diagrs., photos. (NACA RM L7D22)

EFFECTS OF A FUSELAGE ON THE AERODYNAMIC CHARACTERISTICS OF A 42° SWEPTBACK WING AT REYNOLDS NUMBERS TO 8,000,000. Reino J. Salmi, D. William Conner and Robert R. Graham. June 10, 1947. 32p. diagrs., photos. (NACA RM L7E13) (Declassified from Restricted, 12/14/53)

RESULTS OF FLIGHT TESTS AT SUPERSONIC SPEEDS TO DETERMINE THE EFFECT OF BODY NOSE FINENESS RATIO ON BODY AND WING DRAG. Ellis R. Katz. June 26, 1947. 14p. diagrs., photo. (NACA RM L7B19) (Declassified from Confidential, 10/21/53)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPT-BACK WING WITH ASPECT RATIO OF 3.5 AND NACA 2S-50(05)-50(05) AIRFOIL SECTIONS. Anthony J. Proterra. August 4, 1947. 21p. diagrs., photo. (NACA RM L7C11) (Declassified from Restricted, 12/14/53)

MEASUREMENTS OF AERODYNAMIC CHARACTERISTICS OF A 35° SWEPTBACK NACA 65-009 AIRFOIL MODEL WITH 1/4-CHORD PLAIN FLAP BY THE NACA WING-FLOW METHOD. Harold I. Johnson. August 5, 1947. 72p. diagrs., photos. (NACA RM L7F13) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF SPOILER LATERAL CONTROL ON A 42° SWEPTBACK WING AT TRANSONIC SPEEDS. Leslie E. Schneiter and Howard L. Ziff. August 12, 1947. 13p. diagrs. (NACA RM L7F19) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS AND SIDEWASH ANGLES OF A 42° SWEPTBACK CIRCULAR-ARC WING WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT A REYNOLDS NUMBER OF 5,300,000. Reino J. Salmi and James E. Fitzpatrick. December 10, 1947. 38p. diagrs., photos., tab. (NACA RM L7I30) (Declassified from Restricted, 12/14/53)

PRELIMINARY TESTS TO DETERMINE THE MAXIMUM LIFT OF WINGS AT SUPERSONIC SPEEDS. James J. Gallagher and James N. Mueller. December 11, 1947. 41p. diagrs., photos., 3 tabs. (NACA RM L7J10) (Declassified from Restricted, 12/14/53)

Sweep - Complete Wings (Cont.)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LATERAL CONTROL CHARACTERISTICS OF PLAIN AILERONS ON A WING WITH VARIOUS AMOUNTS OF SWEEP. Arvo A. Luoma, Ralph P. Bielat and Richard T. Whitcomb. December 19, 1947. 67p. diagrs., 3 tabs. (NACA RM L7I15) (Declassified from Restricted, 10/21/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 34° SWEPTFORWARD WING WITH CIRCULAR-ARC AIRFOIL SECTIONS. D. William Conner and Patrick A. Cancro. January 9, 1948, 35p. diagrs., photos. (NACA RM L7F04a) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A MODEL TAIL PLANE WITH MODIFIED NACA 65-010 SECTIONS AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Andrew Martin. January 12, 1948. 85p. diagrs., photo., 2 tabs. (NACA RM A7J22) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE DOWNWASH BEHIND A HIGH-ASPECT-RATIO WING WITH VARIOUS AMOUNTS OF SWEEP IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. May 11, 1948. 25p. diagrs., 2 tabs. (NACA RM L8C12) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. II - SWEPT WINGS OF TAPER RATIO 0.5. Walter G. Vincenti, Milton D. Van Dyke and Frederick H. Matteson. June 28, 1948. 56p. diagrs., photos., 2 tabs. (NACA RM A8E05) (Declassified from Confidential, 10/5/53)

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT TRANSONIC SPEEDS OF A SEMISPAN AIRPLANE MODEL HAVING A 45° SWEPTBACK WING AND TAIL AS OBTAINED BY THE TRANSONIC-BUMP METHOD. M. Leroy Spearman. June 30, 1948. 21p. diagrs., photo., tab. (NACA RM L8C11) (Declassified from Restricted, 12/14/53)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING WITH A RAKED TIP AND WITH 16.7-PERCENT-CHORD AILERONS HAVING THREE SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. July 21, 1948. 52p. diagrs., photos., 2 tabs. (NACA RM L8F29) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. I - NACA 0012-64 SECTION WITH 20-PERCENT-CHORD PLAIN AILERON AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Walter J. Krumm. September 27, 1948. 28p. diagrs., photo., 2 tabs. (NACA RM A8H12) (Declassified from Restricted, 12/14/53)

FULL-SCALE INVESTIGATION OF AN EQUILATERAL TRIANGULAR WING HAVING 10-PERCENT-THICK BICONVEX AIRFOIL SECTIONS. Edward F. Whittle, Jr. and J. Calvin Lovell. September 30, 1948. 32p. diagrs., photos. (NACA RM L8G05) (Declassified from Restricted, 12/14/53)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. SUBSONIC MACH AND REYNOLDS NUMBER EFFECTS ON THE CHARACTERISTICS OF THE WING AND ON THE EFFECTIVENESS OF AN ELEVON. Robert M. Reynolds and Donald W. Smith. October 11, 1948. 56p. diagrs., photos., tab. (NACA RM A8D20) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS OF A 52° SWEPTBACK WING OF NACA 64_1-112 SECTION WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT REYNOLDS NUMBERS FROM 1.93×10^6 TO 6.00×10^6. Reino J. Salmi. November 8, 1948. 33p. diagrs., photos. (NACA RM L8H12) (Declassified from Restricted, 12/7/53)

THE EFFECTS OF HIGH-LIFT DEVICES ON THE LOW-SPEED STABILITY CHARACTERISTICS OF A TAPERED 37.5° SWEPTBACK WING OF ASPECT RATIO 3 IN STRAIGHT AND ROLLING FLOW. M. J. Queijo and Jacob H. Lichtenstein. November 9, 1948. 27p. diagrs., photo., tab. (NACA RM L8I03) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

STATIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 52° SWEPTBACK WING OF ASPECT RATIO 2.88 AT REYNOLDS NUMBERS FROM 2,000,000 TO 11,000,000. James E. Fitzpatrick and Gerald V. Foster. November 16, 1948. 21p. diagrs., photo. (NACA RM L8H25) (Declassified from Restricted, 12/14/53)

DOWNWASH, SIDEWASH, AND WAKE SURVEYS BEHIND A 42° SWEPTBACK WING AT A REYNOLDS NUMBER OF 6.8×10^6 WITH AND WITHOUT A SIMULATED GROUND. G. Chester Furlong and Thomas V. Bollech. December 13, 1948. 77p. diagrs., photos., tab. (NACA RM L8G22) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

Sweep - Complete Wings (Cont.)

COMPARISON OF SEMISPAN DATA OBTAINED IN THE LANGLEY TWO-DIMENSIONAL LOW-TURBULENCE PRESSURE TUNNEL AND FULL-SPAN DATA OBTAINED IN THE LANGLEY 19-FOOT PRESSURE TUNNEL FOR A WING WITH 40° SWEEPBACK OF THE 0.27-CHORD LINE. Jones F. Cahill. April 22, 1949. 33p. diagrs., photo. (NACA RM L9B25a) (Declassified from Restricted, 12/14/53)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL EQUIPPED WITH A VARIABLE-SWEEP WING. Charles J. Donlan and William C. Sleeman, Jr. May 23, 1949. 43p. tab., diagrs., photos. (NACA RM L9B18) (Declassified from Restricted, 12/7/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SWEEPBACK ON THE FLUTTER OF A UNIFORM CANTILEVER WING WITH A VARIABLE LOCATED CONCENTRATED MASS. Herbert C. Nelson and John E. Tomassoni. August 31, 1949. 33p. diagrs., tab. (NACA RM L9F24) (Declassified from Restricted, 12/14/53)

LOW-SPEED PRESSURE-DISTRIBUTION AND FLOW INVESTIGATION FOR A LARGE PITCH AND YAW RANGE OF THREE LOW-ASPECT-RATIO POINTED WINGS HAVING LEADING EDGE SWEPT BACK 60° AND BICONVEX SECTIONS. Ralph W. May, Jr. and John G. Hawes. November 18, 1949. 109p. diagrs., photos., tab. (NACA RM L9J07) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION AT A REYNOLDS NUMBER OF 5,300,000 OF A WING OF ASPECT RATIO 5.8 SWEPTFORWARD 32° AT THE LEADING EDGE. Robert R. Graham. February 7, 1950. 44p. diagrs., photo. (NACA RM L9H18) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8 x 10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

CHORDWISE AND SPANWISE LOADINGS MEASURED AT LOW SPEEDS ON A LARGE TRIANGULAR WING HAVING AN ASPECT RATIO OF 2 AND A THIN, SUBSONIC-TYPE AIRFOIL SECTION. David Graham. March 13, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A50A04a) (Declassified from Restricted, 12/11/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. II - MODIFIED NACA 0012-64 SECTION WITH A 26.6-PERCENT-CHORD, PLAIN, TRAILING-EDGE AILERON; WING UNSWEPT AND SWEPT BACK 45°. Walter J. Krumm and Joseph L. Anderson. March 15, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A9L27) (Declassified from Restricted, 12/14/53)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton. March 20, 1950. 32p. diagrs., photos., tab. (NACA RM A50A10) (Declassified from Restricted, 12/11/53)

AN ANALYSIS OF THE FORCES AND PRESSURE DISTRIBUTION ON A WING WITH THE LEADING EDGE SWEPT BACK 37.25°. George G. Edwards and Frederick W. Boltz. March 30, 1950. 102p. diagrs., photos., 2 tabs. (NACA RM A9K01) (Declassified from Restricted, 12/14/53)

LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS WITH ASPECT RATIOS OF 5.1 AND 6.0 AT REYNOLDS NUMBERS UP TO 10 x 10^6. Reino J. Salmi and Robert J. Carros. March 30, 1950. 25p. diagrs., photo. (NACA RM L50A04) (Declassified from Restricted, 12/7/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF ROOT RESTRAINT ON THE FLUTTER OF A SWEPTBACK, UNIFORM, CANTILEVER WING WITH A VARIABLE LOCATED CONCENTRATED MASS. John E. Tomassoni and Herbert C. Nelson. March 31, 1950. 36p. diagrs., tab. (NACA RM L9J21a) (Declassified from Restricted, 12/14/53)

LOW-SPEED PITCHING DERIVATIVES OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Alex Goodman and Byron M. Jaquet. April 17, 1950. 25p. diagrs., photos., 2 tabs. (NACA RM L50C02) (Declassified from Restricted, 12/11/53)

LOW-SPEED INVESTIGATION OF LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 47.5° SWEPTBACK WING OF ASPECT RATIO 3.4 AT A REYNOLDS NUMBER OF 4.4 x 10^6. Jerome Pasamanick and Thomas B. Sellers. June 12, 1950. 29p. diagrs., photo. (NACA RM L50E02) (Declassified from Restricted, 12/11/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4 x 10^6 TO 6.0 x 10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5 x 10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

LOW-SPEED PRESSURE-DISTRIBUTION MEASUREMENTS AT A REYNOLDS NUMBER OF 3.5 x 10^6 ON A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. U. Reed Barnett, Jr. and Roy H. Lange. July 7, 1950. 39p. diagrs., photo. (NACA RM L50A23a) (Declassified from Restricted, 12/11/53)

Sweep - Complete Wings (Cont.)

THE EFFECTS OF COMPRESSIBILITY ON THE PRESSURES ON A BODY OF REVOLUTION AND ON THE AERODYNAMIC CHARACTERISTICS OF A WING-NACELLE COMBINATION CONSISTING OF THE BODY OF REVOLUTION MOUNTED ON A SWEPT-BACK WING. Frederick W. Boltz and Benjamin H. Beam. July 26, 1950. 68p. diagrs., photos., 2 tabs. (NACA RM A50E09) (Declassified from Restricted, 12/11/53)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A CIRCULAR-ARC 52° SWEPTBACK WING OF ASPECT RATIO 2.84 WITH AND WITHOUT LEADING-EDGE AND TRAILING-EDGE FLAPS AT REYNOLDS NUMBERS FROM 1.6×10^6 TO 9.7×10^6. Gerald V. Foster and Roland F. Griner. August 11, 1950. 40p. diagrs., photo., tab. (NACA RM L50F16a) (Declassified from Restricted, 12/11/53)

EFFECTS OF LEADING-EDGE DEVICES AND TRAILING-EDGE FLAPS ON LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS OF ASPECT RATIOS 5.1 AND 6.0 AT A REYNOLDS NUMBER OF 6.0×10^6. Reino J. Salmi. August 30, 1950. 105p. diagrs., photos., tab. (NACA RM L50F20) (Declassified from Restricted, 12/7/53)

POSITIONING INVESTIGATION OF SINGLE SLOTTED FLAPS ON A 47.7° SWEPTBACK WING AT REYNOLDS NUMBERS OF 4.0×10^6 AND 6.0×10^6. Stanley H. Spooner and Ernst F. Mollenberg. October 9, 1950. 36p. diagrs., photo., 3 tabs. (NACA RM L50H29) (Declassified from Restricted, 12/11/53)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT WINGS HAVING NACA 65A006 AIRFOIL SECTIONS. (Revised) Jones F. Cahill and Stanley M. Gottlieb. October 17, 1950. 63p. diagrs., photos. (NACA RM L50F16. Formerly RM L9J20) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A JET-ENGINE NACELLE ON THE AERODYNAMIC CHARACTERISTICS OF A 37.25° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Frederick W. Boltz and Donald A. Buell. October 24, 1950. 28p. diagrs., photos. (NACA RM A50H23) (Declassified from Restricted, 12/11/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. III - SECTION CHARACTERISTICS, FENCE STUDIES, AND TABULATED PRESSURE COEFFICIENTS WITH MODIFIED NACA 0012-64 SECTION, 26.6-PERCENT-CHORD, PLAIN AILERON, 0° AND 45° SWEEPBACK. Walter J. Krumm and Joseph W. Cleary. November 22, 1950. 79p. diagrs., photos., 4 tabs. (NACA RM A50H17) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF CAMBER AND TWIST ON THE AERODYNAMIC LOADING AND STALLING CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton and Joseph K. Dew. January 24, 1951. 40p. diagrs., photo., tab. (NACA RM A50J24) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF TWO LOW-ASPECT-RATIO WINGS CAMBERED AND TWISTED TO PROVIDE A UNIFORM LOAD AT A SUPERSONIC FLIGHT CONDITION. Lewis R. Fisher. June 6, 1951. 24p. diagrs., photos. (NACA RM L51C20)

INVESTIGATION IN THE AMES 12-FOOT PRESSURE WIND TUNNEL OF A MODEL HORIZONTAL TAIL OF ASPECT RATIO 3 AND TAPER RATIO 0.5 HAVING THE QUARTER-CHORD LINE SWEPT BACK 45°. Carl D. Kolbe and Angelo Bandettini. June 25, 1951. 97p. diagrs., photo., 2 tabs. (NACA RM A51D02)

LOW-SPEED STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet, M. J. Queijo and Jacob H. Lichtenstein. June 27, 1951. 30p. diagrs., photos. (NACA RM L51D20a)

EFFECTS OF DOUBLE-SLOTTED FLAPS AND LEADING-EDGE MODIFICATIONS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH AND WITHOUT CAMBER AND TWIST. Harry A. James and Joseph K. Dew. July 1951. 37p. diagrs., photo., 3 tabs. (NACA RM A51D18)

THE USE OF TWO-DIMENSIONAL SECTION DATA TO ESTIMATE THE LOW-SPEED WING LIFT COEFFICIENT AT WHICH SECTION STALL FIRST APPEARS ON A SWEPT WING. Ralph L. Maki. July 1951. 37p. diagrs., photo., 4 tabs. (NACA RM A51E15)

LOW-SPEED INVESTIGATION OF SEVERAL TYPES OF SPLIT FLAP ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0×10^6. Stanley H. Spooner and Ernst F. Mollenberg. July 1951. 41p. diagrs., photo., tab. (NACA RM L51D20)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF FLUTTER CHARACTERISTICS OF M AND W WINGS. Robert W. Herr. August 8, 1951. 31p. diagrs., photos., tab. (NACA RM L51E31) (Declassified from Confidential, 3/10/54)

CALCULATED AERODYNAMIC LOADINGS OF M, W, AND Λ WINGS IN INCOMPRESSIBLE FLOW. Franklin W. Diederich and W. Owen Latham. August 30, 1951. 58p. diagrs., tab. (NACA RM L51E29) (Declassified from Confidential, 3/10/54)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF SINGLE SLOTTED AND DOUBLE SLOTTED FLAPS ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.0×10^6. Ernst F. Mollenberg and Stanley H. Spooner. September 1951. 23p. diagrs., photos., 3 tabs. (NACA RM L51E24)

Sweep - Complete Wings (Cont.)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A PLANE WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Carl D. Kolbe and Frederick W. Boltz. October 1951. 159p. diagrs., photo., 22 tabs. (NACA RM A51G31)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

INVESTIGATION OF LOW-SPEED LATERAL CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A 20-PERCENT-CHORD PLAIN AILERON ON A 47.7° SWEPTBACK WING OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0×10^6. William M. Hadaway and Reino J. Salmi. October 1951. 31p. diagrs. (NACA RM L51F22)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL POSITION ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING EQUIPPED WITH CHORDWISE FENCES. M. J. Queijo and Walter D. Wolhart. November 1951. 28p. diagrs., photo., tab. (NACA RM L51H17)

COMPARISON OF TRANSONIC CHARACTERISTICS OF LIFTING WINGS FROM EXPERIMENTS IN A SMALL SLOTTED TUNNEL AND THE LANGLEY HIGH-SPEED 7- BY 10-FOOT TUNNEL. William C. Sleeman, Jr., Paul L. Klevatt and Edward L. Linsley. November 5, 1951. 44p. diagrs., photos. (NACA RM L51F14) (Declassified from Confidential, 3/10/54)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LATERAL CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet and M. J. Queijo. November 27, 1951. 50p. diagrs., photos. (NACA RM L51I10)

EXPERIMENTAL AND ANALYTICAL INVESTIGATION OF FLUTTER OF A NONUNIFORM SWEPTBACK CANTILEVER WING WITH TWO CONCENTRATED WEIGHTS. John L. Sewall. December 1951. 33p. diagrs., photos., 3 tabs. (NACA RM L51H09a)

COMPARISON OF SEMISPAN AND FULL-SPAN TESTS OF A 47.5° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS AND HAVING DROOPED-NOSE FLAPS, TRAILING-EDGE FLAPS, AND AILERONS. Stanley Lipson and U. Reed Barnett, Jr. December 1951. 60p. photos., diagrs. (NACA RM L51H15)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

EXPERIMENTAL DETERMINATION OF THE EFFECT OF HORIZONTAL-TAIL SIZE, TAIL LENGTH, AND VERTICAL LOCATION ON LOW-SPEED STATIC LONGITUDINAL STABILITY AND DAMPING IN PITCH OF A MODEL HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Jacob H. Lichtenstein. 1952. ii, 22p. diagrs., photos., 3 tabs. (NACA Rept. 1096. Formerly TN 2381; TN 2382)

AIR FORCES AND MOMENTS ON TRIANGULAR AND RELATED WINGS WITH SUBSONIC LEADING EDGES OSCILLATING IN SUPERSONIC POTENTIAL FLOW. Charles E. Watkins and Julian H. Berman. 1952. ii, 25p. diagrs., tab. (NACA Rept. 1099. Formerly TN 2457)

A COMPARISON OF THE SPANWISE LOADING CALCULATED BY VARIOUS METHODS WITH EXPERIMENTAL LOADINGS OBTAINED ON A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT A REYNOLDS NUMBER OF 4.0×10^6. William C. Schneider. January 1952. 32p. diagrs., tab. (NACA RM L51G30)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING LEADING-EDGE MODIFICATIONS AND SEVERAL OUTBOARD FIN ARRANGEMENTS ON THE STATIC STABILITY CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR WING. H. Clyde McLemore. January 1952. 64p. diagrs., photo., tab. (NACA RM L51J05)

METHOD OF ESTIMATING THE STICK-FIXED LONGITUDINAL STABILITY OF WING-FUSELAGE CONFIGURATIONS HAVING UNSWEPT OR SWEPT WINGS. Milton D. McLaughlin. January 1952. 41p. diagrs., 3 tabs. (NACA RM L51J23)

A PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF A THIN DELTA WING EQUIPPED WITH A DOUBLE AND A SINGLE SLOTTED FLAP. Richard G. MacLeod. January 1952. 12p. diagrs., photo., 2 tabs. (NACA RM L51J26)

FORCE AND PRESSURE INVESTIGATION AT LARGE SCALE OF A 49° SWEPTBACK SEMISPAN WING HAVING NACA 65A006 SECTIONS AND EQUIPPED WITH VARIOUS SLAT ARRANGEMENTS. Stanley Lipson and U. Reed Barnett, Jr. January 1952. 60p. diagrs., photo., tab. (NACA RM L51K26)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

Sweep - Complete Wings (Cont.)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 60° SWEPT-BACK WING WITH HIGH LIFT DEVICES. Mark W. Kelly. March 1952. 54p. diagrs., photo., 7 tabs. (NACA RM A52A14a)

STUDIES OF THE FLOW FIELD BEHIND A LARGE SCALE 47.5° SWEPTBACK WING HAVING CIRCULAR-ARC AIRFOIL SECTIONS AND EQUIPPED WITH DROOPED-NOSE AND PLAIN FLAPS. Roy H. Lange and Marvin P. Fink. March 1952. 57p. diagrs., photos., tab. (NACA RM L51L12)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS, AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

A PRELIMINARY GUST-TUNNEL INVESTIGATION OF LEADING-EDGE SEPARATION ON SWEPT WINGS. George L. Cahen. June 1952. 12p. photos. (NACA RM L52C20)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

INVESTIGATION AT LOW SPEED OF THE DOWNWASH, SIDEWASH, AND WAKE CHARACTERISTICS BEHIND A LARGE-SCALE TRIANGULAR WING, INCLUDING THE EFFECTS OF YAW, FULL-SPAN TRAILING-EDGE FLAPS, AND TWO LEADING-EDGE MODIFICATIONS. Edward F. Whittle, Jr. and John G. Hawes. October 27, 1952. 65p. diagrs., photos., tab. (NACA RM L52H19)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

THE LOW-SPEED LIFT AND PITCHING-MOMENT CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AS DETERMINED FROM PRESSURE DISTRIBUTIONS AT A REYNOLDS NUMBER OF 4.0×10^6. Thomas V. Bollech and William M. Hadaway. January 1953. 57p. diagrs., photo. (NACA RM L52K26)

THEORETICAL INVESTIGATION OF THE SUPERSONIC LIFT AND DRAG OF THIN, SWEPTBACK WINGS WITH INCREASED SWEEP NEAR THE ROOT. Doris Cohen and Morris D. Friedman. June 1953. 51p. diagrs. (NACA TN 2959)

GUST-TUNNEL INVESTIGATION TO DETERMINE EFFECTS OF CENTER-OF-GRAVITY POSITION ON THE GUST LOADS OF A DELTA-WING MODEL WITH LEADING EDGE SWEPT BACK 60°. Thomas D. Reisert and Domenic J. Maglieri. June 1953. 13p. diagrs., photo., 2 tabs. (NACA RM L53A30)

EFFECTS OF FINITE SPAN ON THE SECTION CHARACTERISTICS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 6. Lynn W. Hunton. September 1953. 32p. diagrs. (NACA TN 3008. Formerly RM A52A10)

VELOCITY POTENTIAL AND AIR FORCES ASSOCIATED WITH A TRIANGULAR WING IN SUPERSONIC FLOW, WITH SUBSONIC LEADING EDGES, AND DEFORMING HARMONICALLY ACCORDING TO A GENERAL QUADRATIC EQUATION. Charles E. Watkins and Julian H. Berman. September 1953. 61p. diagrs., tab. (NACA TN 3009)

THE CALCULATED AND EXPERIMENTAL INCREMENTAL LOADS AND MOMENTS PRODUCED BY SPLIT FLAPS OF VARIOUS SPANS AND SPANWISE LOCATIONS ON A 45° SWEPTBACK WING OF ASPECT RATIO 8. H. Neale Kelly. September 1953. 35p. diagrs., photo. (NACA RM L53F12)

A PRELIMINARY STUDY OF THE PROBLEM OF DESIGNING HIGH-SPEED AIRPLANES WITH SATISFACTORY INHERENT DAMPING OF THE DUTCH ROLL OSCILLATION. John P. Campbell and Marion O. McKinney, Jr. October 1953. 40p. diagrs., 4 tabs. (NACA TN 3035)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

GUST-TUNNEL INVESTIGATION OF THE EFFECT OF LEADING-EDGE SEPARATION ON THE NORMAL ACCELERATIONS EXPERIENCED BY A 45° SWEPTBACK-WING MODEL IN GUSTS. George L. Cahen. November 1953. 16p. diagrs., photos., tab. (NACA RM L53J07)

A METHOD FOR CALCULATING THE SUBSONIC STEADY-STATE LOADING ON AN AIRPLANE WITH A WING OF ARBITRARY PLAN FORM AND STIFFNESS. W. L. Gray and K. M. Schenk, Boeing Airplane Company. December 1953. ii, 120p. diagrs., tab. (NACA TN 3030)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

Sweep - Complete Wings (Cont.)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

DOWNWASH CHARACTERISTICS AND VORTEX-SHEET SHAPE BEHIND A 63° SWEPT-BACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.1 x 10^6. William H. Tolhurst, Jr. May 1954. 45p. diagrs., photo. (NACA TN 3175. Formerly RM A52J08)

Taper and Twist
(1.2.2.2.4)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. III - UNSWEPT WINGS OF DIFFERING ASPECT RATIO AND TAPER RATIO. Jack N. Nielsen, Frederick H. Matteson and Walter G. Vincenti. June 21, 1948. 64p. diagrs., photos., tab. (NACA RM A8E06) (Declassified from Confidential, 10/5/53)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton. March 20, 1950. 32p. diagrs., photos., tab. (NACA RM A50A10) (Declassified from Restricted, 12/11/53)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT WINGS HAVING NACA 65A006 AIRFOIL SECTIONS. (Revised) Jones F. Cahill and Stanley M. Gottlieb. October 17, 1950. 63p. diagrs., photos. (NACA RM L50F16. Formerly RM L9J20) (Declassified from Restricted, 12 11 53)

THE EFFECTS OF CAMBER AND TWIST ON THE AERODYNAMIC LOADING AND STALLING CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton and Joseph K. Dew. January 24, 1951. 40p. diagrs., photo., tab. (NACA RM A50J24) (Declassified from Restricted, 12/11/53)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF TWO LOW-ASPECT-RATIO WINGS CAMBERED AND TWISTED TO PROVIDE A UNIFORM LOAD AT A SUPERSONIC FLIGHT CONDITION. Lewis R. Fisher. June 6, 1951. 24p. diagrs., photos. (NACA RM L51C20)

EFFECTS OF DOUBLE-SLOTTED FLAPS AND LEADING-EDGE MODIFICATIONS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH AND WITHOUT CAMBER AND TWIST. Harry A. James and Joseph K. Dew. July 1951. 37p. diagrs., photo., 3 tabs. (NACA RM A51D18)

EXPERIMENTAL AND ANALYTICAL INVESTIGATION OF FLUTTER OF A NONUNIFORM SWEPT-BACK CANTILEVER WING WITH TWO CONCENTRATED WEIGHTS. John L. Sewall. December 1951. 33p. diagrs., photos., 3 tabs. (NACA RM L51H09a)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

CALCULATED SPANWISE LIFT DISTRIBUTIONS AND AERODYNAMIC INFLUENCE COEFFICIENTS FOR UNSWEPT WINGS IN SUBSONIC FLOW. Franklin W. Diederich and Martin Zlotnick. September 1953. 120p. diagrs., 11 tabs. (Tables of F matrices to be used with TN 3014 are published separately) (NACA TN 3014)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

A METHOD FOR CALCULATING THE SUBSONIC STEADY-STATE LOADING ON AN AIRPLANE WITH A WING OF ARBITRARY PLAN FORM AND STIFFNESS. W. L. Gray and K. M. Schenk, Boeing Airplane Company. December 1953. ii, 120p. diagrs., tab. (NACA TN 3030)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

Inlets and Exits
(1.2.2.2.5)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPT WING WITH LEADING-EDGE INLETS. Robert E. Dannenberg. August 1951. 48p. diagrs., photos., tab. (NACA RM A51E29)

A DESIGN STUDY OF LEADING-EDGE INLETS FOR UNSWEPT WINGS. Robert E. Dannenberg. March 1954. 56p. diagrs., photos., 3 tabs. (NACA TN 3126. Formerly RM A9K02b)

Surface Conditions
(1.2.2.2.6)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. I - CHARACTERISTICS OF A PLAIN WING. Ben H. Johnson, Jr. June 2, 1948. 37p. diagrs., photo. (NACA RM A8D07) (Declassified from Restricted, 12/14/53)

Surface Conditions - Complete Wings (Cont.)

STATIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 52° SWEPTBACK WING OF ASPECT RATIO 2.88 AT REYNOLDS NUMBERS FROM 2,000,000 TO 11,000,000. James E. Fitzpatrick and Gerald V. Foster. November 16, 1948. 21p. diagrs., photo. (NACA RM L8H25) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN STRAIGHT WING OF ASPECT RATIO 4 BY THE NACA WING-FLOW METHOD. LIFT AND PITCHING-MOMENT CHARACTERISTICS OF THE WING ALONE. George A. Rathert, Jr., Carl M. Hanson and L. Stewart Rolls. February 14, 1949. 37p. diagrs., photos. (NACA RM A8L20) (Declassified from Restricted, 12/14/53)

THE EFFECT OF SPAN AND DEFLECTION OF SPLIT FLAPS AND LEADING-EDGE ROUGHNESS ON THE LONGITUDINAL STABILITY AND GLIDING CHARACTERISTICS OF A 42° SWEPTBACK WING EQUIPPED WITH LEADING-EDGE FLAPS. George L. Pratt and Thomas V. Bollech. June 21, 1949. 26p. diagrs., photo. (NACA RM L9E02) (Declassified from Restricted, 12/7/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8 x 10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4 x 10^6 TO 6.0 x 10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

EFFECTS OF LEADING-EDGE DEVICES AND TRAILING-EDGE FLAPS ON LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS OF ASPECT RATIOS 5.1 AND 6.0 AT A REYNOLDS NUMBER OF 6.0 x 10^6. Reino J. Salmi. August 30, 1950. 105p. diagrs., photos., tab. (NACA RM L50F20) (Declassified from Restricted, 12/7/53)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT-RATIO-20 WING HAVING THICK AIRFOIL SECTIONS AND EMPLOYING BOUNDARY-LAYER CONTROL BY SUCTION. Bennie W. Cocke, Jr., Marvin P. Fink and Stanley M. Gottlieb. August 1953. 63p. diagrs., photos., 2 tabs. (NACA TN 2980)

Dihedral
(1.2.2.2.7)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPT-BACK WING WITH ASPECT RATIO OF 3.5 AND NACA 2S-50(05)-50(05) AIRFOIL SECTIONS. Anthony J. Proterra. August 4, 1947. 21p. diagrs., photo. (NACA RM L7C11) (Declassified from Restricted, 12/14/53)

A PRELIMINARY STUDY OF THE PROBLEM OF DESIGNING HIGH-SPEED AIRPLANES WITH SATISFACTORY INHERENT DAMPING OF THE DUTCH ROLL OSCILLATION. John P. Campbell and Marion O. McKinney, Jr. October 1953. 40p. diagrs., 4 tabs. (NACA TN 3035)

HIGH-LIFT DEVICES
(1.2.2.3)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF VARIOUS PLUG-AILERON AND LIFT-FLAP CONFIGURATIONS ON A 42° SWEPTBACK SEMISPAN WING. Leslie E. Schneiter and James M. Watson. January 26, 1949. 45p. diagrs., photos. (NACA RM L8K19) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECT OF CHORDWISE FENCES ON LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING. M. J. Queijo and Byron M. Jaquet. December 18, 1950. 47p. diagrs., photos. (NACA RM L50K07) (Declassified from Restricted, 12/8/53)

High-Lift Devices - Complete Wings (Cont.)

EFFECTS OF DOUBLE-SLOTTED FLAPS AND LEADING-EDGE MODIFICATIONS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH AND WITHOUT CAMBER AND TWIST. Harry A. James and Joseph K. Dew. July 1951. 37p. diagrs., photo., 3 tabs. (NACA RM A51D18)

METHOD FOR CALCULATING LIFT DISTRIBUTIONS FOR UNSWEPT WINGS WITH FLAPS OR AILERONS BY USE OF NONLINEAR SECTION LIFT DATA. James C. Sivells and Gertrude C. Westrick. 1952. ii, 25p. diagrs., 13 tabs. (NACA Rept. 1090. Formerly TN 2283)

THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT-RATIO-20 WING HAVING THICK AIRFOIL SECTIONS AND EMPLOYING BOUNDARY-LAYER CONTROL BY SUCTION. Bennie W. Cocke, Jr., Marvin P. Fink and Stanley M. Gottlieb. August 1953. 63p. diagrs., photos., 2 tabs. (NACA TN 2980)

Trailing-Edge Flaps (1.2.2.3.1)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

EFFECTS OF A FUSELAGE ON THE AERODYNAMIC CHARACTERISTICS OF A 42° SWEPTBACK WING AT REYNOLDS NUMBERS TO 8,000,000. Reino J. Salmi, D. William Conner and Robert R. Graham. June 10, 1947. 32p. diagrs., photos. (NACA RM L7E13) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS AND SIDEWASH ANGLES OF A 42° SWEPTBACK CIRCULAR-ARC WING WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT A REYNOLDS NUMBER OF 5,300,000. Reino J. Salmi and James E. Fitzpatrick. December 10, 1947. 38p. diagrs., photos., tab. (NACA RM L7I30) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF PRESSURE DISTRIBUTION OVER AN EXTENDED LEADING-EDGE FLAP ON A 42° SWEPTBACK WING. D. William Conner and Gerald V. Foster. December 19, 1947. 12p. diagrs. (NACA RM L7J03) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 34° SWEPTFORWARD WING WITH CIRCULAR-ARC AIRFOIL SECTIONS. D. William Conner and Patrick A. Cancro. January 9, 1948, 35p. diagrs., photos. (NACA RM L7F04a) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING WITH A RAKED TIP AND WITH 16.7-PERCENT-CHORD AILERONS HAVING THREE SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. July 21, 1948. 52p. diagrs., photos., 2 tabs. (NACA RM L8F29) (Declassified from Restricted, 12/14/53)

LANGLEY FULL-SCALE-TUNNEL INVESTIGATION OF THE CHARACTERISTICS IN YAW OF A TRAPEZOIDAL WING OF ASPECT RATIO 4 WITH CIRCULAR-ARC AIRFOIL SECTIONS. Ralph W. May, Jr. and George L. Stevens. August 30, 1948. 19p. diagrs., photos. (NACA RM L8C15) (Declassified from Restricted, 12/14/53)

TESTS OF A TRIANGULAR WING OF ASPECT RATIO 2 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. III - THE EFFECTIVENESS AND HINGE MOMENTS OF A SKEWED WING-TIP FLAP. Carl D. Kolbe and Bruce E. Tinling. September 21, 1948. 30p. diagrs., photo. (NACA RM A8E21) (Declassified from Restricted, 12/14/53)

LOW-SPEED PRESSURE DISTRIBUTIONS OVER THE DROOPED-NOSE FLAP OF A 42° SWEPTBACK WING WITH CIRCULAR-ARC AIRFOIL SECTIONS AT A REYNOLDS NUMBER OF 5.3×10^6. Stanley H. Spooner and Robert L. Woods. September 23, 1948. 28p. diagrs., tab. (NACA RM L8F16) (Declassified from Restricted, 12/14/53)

FULL-SCALE INVESTIGATION OF AN EQUILATERAL TRIANGULAR WING HAVING 10-PERCENT-THICK BICONVEX AIRFOIL SECTIONS. Edward F. Whittle, Jr. and J. Calvin Lovell. September 30, 1948. 32p. diagrs., photos. (NACA RM L8G05) (Declassified from Restricted, 12/14/53)

EFFECT OF HIGH-LIFT DEVICES ON THE LONGITUDINAL AND LATERAL CHARACTERISTICS OF A 45° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS. Eugene R. Guryansky and Stanley Lipson. October 1, 1948. 45p. diagrs., photo. (NACA RM L8D06) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. II - THE EFFECT OF CONSTANT-CHORD LEADING- AND TRAILING-EDGE FLAPS ON THE LOW-SPEED CHARACTERISTICS OF THE WING. Ben H. Johnson, Jr. and Angelo Bandettini. October 18, 1948. 42p. diagrs., photos., tabs. (NACA RM A8F15) (Declassified from Restricted, 12/14/53)

Trailing-Edge Flaps - Complete Wings (Cont.)

YAW CHARACTERISTICS OF A 52° SWEPTBACK WING OF NACA 64_1-112 SECTION WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT REYNOLDS NUMBERS FROM 1.93×10^6 TO 6.00×10^6. Reino J. Salmi. November 8, 1948. 33p. diagrs., photos. (NACA RM L8H12) (Declassified from Restricted, 12/7/53)

THE EFFECTS OF HIGH-LIFT DEVICES ON THE LOW-SPEED STABILITY CHARACTERISTICS OF A TAPERED 37.5° SWEPTBACK WING OF ASPECT RATIO 3 IN STRAIGHT AND ROLLING FLOW. M. J. Queijo and Jacob H. Lichtenstein. November 9, 1948. 27p. diagrs., photo., tab. (NACA RM L8I03) (Declassified from Restricted, 12/14/53)

EFFECT OF LEADING-EDGE HIGH-LIFT DEVICES AND SPLIT FLAPS ON THE MAXIMUM-LIFT AND LATERAL CHARACTERISTICS OF A RECTANGULAR WING OF ASPECT RATIO 3.4 WITH CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 2.9×10^6 TO 8.4×10^6. Roy H. Lange and Ralph W. May, Jr. November 10, 1948. 70p. diagrs., photos. (NACA RM L8D30) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

STATIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 52° SWEPTBACK WING OF ASPECT RATIO 2.88 AT REYNOLDS NUMBERS FROM 2,000,000 TO 11,000,000. James E. Fitzpatrick and Gerald V. Foster. November 16, 1948. 21p. diagrs., photo. (NACA RM L8H25) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF VARIOUS PLUG-AILERON AND LIFT-FLAP CONFIGURATIONS ON A 42° SWEPTBACK SEMISPAN WING. Leslie E. Schneiter and James M. Watson. January 26, 1949. 45p. diagrs., photos. (NACA RM L8K19) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

PRESSURE-DISTRIBUTION MEASUREMENTS OVER AN EXTENSIBLE LEADING-EDGE FLAP ON TWO WINGS HAVING LEADING-EDGE SWEEP OF 42° AND 52°. Reino J. Salmi. March 7, 1949. 36p. diagrs., photos. (NACA RM L9A18) (Declassified from Restricted, 12/14/53)

LOW-SPEED INVESTIGATION OF AILERON AND SPOILER CHARACTERISTICS OF A WING HAVING 42° SWEEPBACK OF THE LEADING EDGE AND CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS OF APPROXIMATELY 6.0×10^6. Stanley H. Spooner and Robert L. Woods. March 10, 1949. 58p. diagrs., photos. (NACA RM L9A07) (Declassified from Restricted, 12/14/53)

COMPARISON OF SEMISPAN DATA OBTAINED IN THE LANGLEY TWO-DIMENSIONAL LOW-TURBULENCE PRESSURE TUNNEL AND FULL-SPAN DATA OBTAINED IN THE LANGLEY 19-FOOT PRESSURE TUNNEL FOR A WING WITH 40° SWEEPBACK OF THE 0.27-CHORD LINE. Jones F. Cahill. April 22, 1949. 33p. diagrs., photo. (NACA RM L9B25a) (Declassified from Restricted, 12/14/53)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL EQUIPPED WITH A VARIABLE-SWEEP WING. Charles J. Donlan and William C. Sleeman, Jr. May 23, 1949. 43p. tab., diagrs., photos. (NACA RM L9B18) (Declassified from Restricted, 12/7/53)

THE EFFECT OF SPAN AND DEFLECTION OF SPLIT FLAPS AND LEADING-EDGE ROUGHNESS ON THE LONGITUDINAL STABILITY AND GLIDING CHARACTERISTICS OF A 42° SWEPTBACK WING EQUIPPED WITH LEADING-EDGE FLAPS. George L. Pratt and Thomas V. Bollech. June 21, 1949. 26p. diagrs., photo. (NACA RM L9E02) (Declassified from Restricted, 12/7/53)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF LOW-SPEED AILERON CONTROL CHARACTERISTICS AT A REYNOLDS NUMBER OF 6,800,000 OF A WING WITH LEADING EDGE SWEPT BACK 42° WITH AND WITHOUT HIGH-LIFT DEVICES. Thomas V. Bollech and George L. Pratt. July 19, 1949. 31p. diagrs., photo. (NACA RM L9E24) (Declassified from Restricted, 12/7/53)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC LOADS ON THE DROOP-NOSE FLAP OF A WING WITH LEADING EDGE SWEPT BACK 47.5° AND HAVING SYMMETRICAL CIRCULAR-ARC AIRFOIL SECTIONS AT A REYNOLDS NUMBER OF 4.3×10^6. Edward F. Whittle, Jr. and Marvin P. Fink. January 16, 1950. 34p. diagrs., 3 tabs. (NACA RM L9K04) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION AT A REYNOLDS NUMBER OF 5,300,000 OF A WING OF ASPECT RATIO 5.8 SWEPTFORWARD 32° AT THE LEADING EDGE. Robert R. Graham. February 7, 1950. 44p. diagrs., photo. (NACA RM L9H18) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8×10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

EFFECTS OF PLAIN AND STEP SPOILER LOCATION AND PROJECTION ON THE LATERAL CONTROL CHARACTERISTICS OF A PLAIN AND FLAPPED 42° SWEPTBACK WING AT A REYNOLDS NUMBER OF 6.8×10^6. Thomas V. Bollech and George L. Pratt. February 14, 1950. 43p. diagrs., photos. (NACA RM L9L20a) (Declassified from Restricted, 12/7/53)

Trailing-Edge Flaps - Complete Wings (Cont.)

CHORDWISE AND SPANWISE LOADINGS MEASURED AT LOW SPEEDS ON A LARGE TRIANGULAR WING HAVING AN ASPECT RATIO OF 2 AND A THIN, SUBSONIC-TYPE AIRFOIL SECTION. David Graham. March 13, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A50A04a) (Declassified from Restricted, 12/11/53)

LOW-SPEED INVESTIGATION OF LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 47.5° SWEPT-BACK WING OF ASPECT RATIO 3.4 AT A REYNOLDS NUMBER OF 4.4×10^6. Jerome Pasamanick and Thomas B. Sellers. June 12, 1950. 29p. diagrs., photo. (NACA RM L50E02) (Declassified from Restricted, 12/11/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4×10^6 TO 6.0×10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5×10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

LOW-SPEED PRESSURE-DISTRIBUTION MEASUREMENTS AT A REYNOLDS NUMBER OF 3.5×10^6 ON A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. U. Reed Barnett, Jr. and Roy H. Lange. July 7, 1950. 39p. diagrs., photo. (NACA RM L50A23a) (Declassified from Restricted, 12/11/53)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A CIRCULAR-ARC 52° SWEPTBACK WING OF ASPECT RATIO 2.84 WITH AND WITHOUT LEADING-EDGE AND TRAILING-EDGE FLAPS AT REYNOLDS NUMBERS FROM 1.6×10^6 TO 9.7×10^6. Gerald V. Foster and Roland F. Griner. August 11, 1950. 40p. diagrs., photo., tab. (NACA RM L50F16a) (Declassified from Restricted, 12/11/53)

EFFECTS OF LEADING-EDGE DEVICES AND TRAILING-EDGE FLAPS ON LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS OF ASPECT RATIOS 5.1 AND 6.0 AT A REYNOLDS NUMBER OF 6.0×10^6. Reino J. Salmi. August 30, 1950. 105p. diagrs., photos., tab. (NACA RM L50F20) (Declassified from Restricted, 12/7/53)

POSITIONING INVESTIGATION OF SINGLE SLOTTED FLAPS ON A 47.7° SWEPTBACK WING AT REYNOLDS NUMBERS OF 4.0×10^6 AND 6.0×10^6. Stanley H. Spooner and Ernst F. Mollenberg. October 9, 1950. 36p. diagrs., photo., 3 tabs. (NACA RM L50H29) (Declassified from Restricted, 12/11/53)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT WINGS HAVING NACA 65A006 AIRFOIL SECTIONS. (Revised) Jones F. Cahill and Stanley M. Gottlieb. October 17, 1950. 63p. diagrs., photos. (NACA RM L50F16. Formerly RM L9J20) (Declassified from Restricted, 12/11/53)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

EFFECTS OF DOUBLE-SLOTTED FLAPS AND LEADING-EDGE MODIFICATIONS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH AND WITHOUT CAMBER AND TWIST. Harry A. James and Joseph K. Dew. July 1951. 37p. diagrs., photo., 3 tabs. (NACA RM A51D18)

THE USE OF TWO-DIMENSIONAL SECTION DATA TO ESTIMATE THE LOW-SPEED WING LIFT COEFFICIENT AT WHICH SECTION STALL FIRST APPEARS ON A SWEPT WING. Ralph L. Maki. July 1951. 37p. diagrs., photo., 4 tabs. (NACA RM A51E15)

LOW-SPEED INVESTIGATION OF SEVERAL TYPES OF SPLIT FLAP ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0×10^6. Stanley H. Spooner and Ernst F. Mollenberg. July 1951. 41p. diagrs., photo., tab. (NACA RM L51D20)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF SINGLE SLOTTED AND DOUBLE SLOTTED FLAPS ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.0×10^6. Ernst F. Mollenberg and Stanley H. Spooner. September 1951. 23p. diagrs., photos., 3 tabs. (NACA RM L51E24)

INVESTIGATION OF LOW-SPEED LATERAL CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A 20-PERCENT-CHORD PLAIN AILERON ON A 47.7° SWEPTBACK WING OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0×10^6. William M. Hadaway and Reino J. Salmi. October 1951. 31p. diagrs. (NACA RM L51F22)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL POSITION ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING EQUIPPED WITH CHORDWISE FENCES. M. J. Queijo and Walter D. Wolhart. November 1951. 26p. diagrs., photo., tab. (NACA RM L51H17)

COMPARISON OF SEMISPAN AND FULL-SPAN TESTS OF A 47.5° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS AND HAVING DROOPED-NOSE FLAPS, TRAILING-EDGE FLAPS, AND AILERONS. Stanley Lipson and U. Reed Barnett, Jr. December 1951. 60p. photos., diagrs. (NACA RM L51H15)

A PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF A THIN DELTA WING EQUIPPED WITH A DOUBLE AND A SINGLE SLOTTED FLAP. Richard G. MacLeod. January 1952. 12p. diagrs., photo., 2 tabs. (NACA RM L51J26)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

Trailing-Edge Flaps - Complete Wings (Cont.)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 60° SWEPT-BACK WING WITH HIGH LIFT DEVICES. Mark W. Kelly. March 1952. 54p. diagrs., photo., 7 tabs. (NACA RM A52A14a)

STUDIES OF THE FLOW FIELD BEHIND A LARGE SCALE 47.5° SWEPTBACK WING HAVING CIRCULAR-ARC AIRFOIL SECTIONS AND EQUIPPED WITH DROOPED-NOSE AND PLAIN FLAPS. Roy H. Lange and Marvin P. Fink. March 1952. 57p. diagrs., photos., tab. (NACA RM L51L12)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS, AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

EFFECTS OF SEVERAL HIGH-LIFT AND STALL-CONTROL DEVICES ON THE AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPT-BACK WING. U. Reed Barnett, Jr. and Stanley Lipson. September 1952. 39p. diagrs., photo. (NACA RM L52D17a)

INVESTIGATION AT LOW SPEED OF THE DOWNWASH, SIDEWASH, AND WAKE CHARACTERISTICS BEHIND A LARGE-SCALE TRIANGULAR WING, INCLUDING THE EFFECTS OF YAW, FULL-SPAN TRAILING-EDGE FLAPS, AND TWO LEADING-EDGE MODIFICATIONS. Edward F. Whittle, Jr. and John G. Hawes. October 27, 1952. 65p. diagrs., photos., tab. (NACA RM L52H19)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

THE LOW-SPEED LIFT AND PITCHING-MOMENT CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AS DETERMINED FROM PRESSURE DISTRIBUTIONS AT A REYNOLDS NUMBER OF 4.0×10^6. Thomas V. Bollech and William M. Hadaway. January 1953. 57p. diagrs., photo. (NACA RM L52K26)

LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF AN UNSWEPT WING WITH HEXAGONAL AIRFOIL SECTIONS AND ASPECT RATIO 4.0 AT A REYNOLDS NUMBER OF 6.2×10^6. William M. Hadaway. March 1953. 24p. diagrs., photo. (NACA RM L53A29)

LOW-SPEED, LARGE-SCALE INVESTIGATION OF AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPTBACK WING WITH A FOWLER FLAP IN COMBINATION WITH A PLAIN FLAP, SLATS, AND FENCES. Edward F. Whittle, Jr. and Stanley Lipson. June 1953. 42p. diagrs., photos., tab. (NACA RM L53D09)

THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT-RATIO-20 WING HAVING THICK AIRFOIL SECTIONS AND EMPLOYING BOUNDARY-LAYER CONTROL BY SUCTION. Bennie W. Cocke, Jr., Marvin P. Fink and Stanley M. Gottlieb. August 1953. 63p. diagrs., photos., 2 tabs. (NACA TN 2980)

THE CALCULATED AND EXPERIMENTAL INCREMENTAL LOADS AND MOMENTS PRODUCED BY SPLIT FLAPS OF VARIOUS SPANS AND SPANWISE LOCATIONS ON A 45° SWEPTBACK WING OF ASPECT RATIO 8. H. Neale Kelly. September 1953. 35p. diagrs., photo. (NACA RM L53F12)

USE OF TWO-DIMENSIONAL DATA IN ESTIMATING LOADS ON A 45° SWEPTBACK WING WITH SLATS AND PARTIAL-SPAN FLAPS. Lynn W. Hunton and Harry A. James. November 1953. 40p. diagrs., photo., tab. (NACA TN 3040)

Slots and Slats (1.2.2.3.2)

THE EFFECTS OF HIGH-LIFT DEVICES ON THE LOW-SPEED STABILITY CHARACTERISTICS OF A TAPERED 37.5° SWEPTBACK WING OF ASPECT RATIO 3 IN STRAIGHT AND ROLLING FLOW. M. J. Queijo and Jacob H. Lichtenstein. November 9, 1948. 27p. diagrs., photo., tab. (NACA RM L8I03) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8×10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4×10^6 TO 6.0×10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

Slots and Slats - Complete Wings (Cont.)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5 x 10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL POSITION ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING EQUIPPED WITH CHORDWISE FENCES. M. J. Queijo and Walter D. Wolhart. November 1951. 28p. diagrs., photo., tab. (NACA RM L51H17)

FORCE AND PRESSURE INVESTIGATION AT LARGE SCALE OF A 49° SWEPTBACK SEMISPAN WING HAVING NACA 65A006 SECTIONS AND EQUIPPED WITH VARIOUS SLAT ARRANGEMENTS. Stanley Lipson and U. Reed Barnett, Jr. January 1952. 60p. diagrs., photo., tab. (NACA RM L51K26)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 60° SWEPT-BACK WING WITH HIGH LIFT DEVICES. Mark W. Kelly. March 1952. 54p. diagrs., photo., 7 tabs. (NACA RM A52A14a)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS, AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

EFFECTS OF SEVERAL HIGH-LIFT AND STALL-CONTROL DEVICES ON THE AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPT-BACK WING. U. Reed Barnett, Jr. and Stanley Lipson. September 1952. 39p. diagrs., photo. (NACA RM L52D17a)

LOW-SPEED, LARGE-SCALE INVESTIGATION OF AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPTBACK WING WITH A FOWLER FLAP IN COMBINATION WITH A PLAIN FLAP, SLATS, AND FENCES. Edward F. Whittle, Jr. and Stanley Lipson. June 1953. 42p. diagrs., photos., tab. (NACA RM L53D09)

USE OF TWO-DIMENSIONAL DATA IN ESTIMATING LOADS ON A 45° SWEPTBACK WING WITH SLATS AND PARTIAL-SPAN FLAPS. Lynn W. Hunton and Harry A. James. November 1953. 40p. diagrs., photo., tab. (NACA TN 3040)

Leading-Edge Flaps (1.2.2.3.3)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. II - THE EFFECT OF CONSTANT-CHORD LEADING- AND TRAILING-EDGE FLAPS ON THE LOW-SPEED CHARACTERISTICS OF THE WING. Ben H. Johnson, Jr. and Angelo Bandettini. October 18, 1948. 42p. diagrs., photos., tabs. (NACA RM A8F15) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. IV - THE EFFECT OF A CONSTANT-CHORD LEADING-EDGE FLAP AT HIGH SUBSONIC SPEEDS. Ben H. Johnson, Jr. and Verlin D. Reed. January 20, 1949. 30p. diagrs., photo. (NACA RM A8K19) (Declassified from Restricted, 12/14/53)

THE EFFECT OF SPAN AND DEFLECTION OF SPLIT FLAPS AND LEADING-EDGE ROUGHNESS ON THE LONGITUDINAL STABILITY AND GLIDING CHARACTERISTICS OF A 42° SWEPTBACK WING EQUIPPED WITH LEADING-EDGE FLAPS. George L. Pratt and Thomas V. Bollech. June 21, 1949. 26p. diagrs., photo. (NACA RM L9E02) (Declassified from Restricted, 12/7/53)

EXPLORATORY INVESTIGATION OF THE EFFECT OF SKEWED PLAIN NOSE FLAPS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR-WING-FUSELAGE MODEL. Bradford H. Wick and David Graham. January 12, 1950. 12p. diagrs., photo. (NACA RM A9K22) (Declassified from Restricted, 12/14/53)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC LOADS ON THE DROOP-NOSE FLAP OF A WING WITH LEADING EDGE SWEPT BACK 47.5° AND HAVING SYMMETRICAL CIRCULAR-ARC AIRFOIL SECTIONS AT A REYNOLDS NUMBER OF 4.3 x 10^6. Edward F. Whittle, Jr. and Marvin P. Fink. January 16, 1950. 34p. diagrs., 3 tabs. (NACA RM L9K04) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8 x 10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

LOW-SPEED INVESTIGATION OF LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 47.5° SWEPTBACK WING OF ASPECT RATIO 3.4 AT A REYNOLDS NUMBER OF 4.4 x 10^6. Jerome Pasamanick and Thomas B. Sellers. June 12, 1950. 29p. diagrs., photo. (NACA RM L50E02) (Declassified from Restricted, 12/11/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4 x 10^6 TO 6.0 x 10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

Leading-Edge Flaps - Complete Wings (Cont.)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5 x 10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A CIRCULAR-ARC 52° SWEPTBACK WING OF ASPECT RATIO 2.84 WITH AND WITHOUT LEADING-EDGE AND TRAILING-EDGE FLAPS AT REYNOLDS NUMBERS FROM 1.6 x 10^6 TO 9.7 x 10^6. Gerald V. Foster and Roland F. Griner. August 11, 1950. 40p. diagrs., photo., tab. (NACA RM L50F16a) (Declassified from Restricted, 12/11/53)

POSITIONING INVESTIGATION OF SINGLE SLOTTED FLAPS ON A 47.7° SWEPTBACK WING AT REYNOLDS NUMBERS OF 4.0 x 10^6 AND 6.0 x 10^6. Stanley H. Spooner and Ernst F. Mollenberg. October 9, 1950. 36p. diagrs., photo., 3 tabs. (NACA RM L50H29) (Declassified from Restricted, 12/11/53)

THE USE OF TWO-DIMENSIONAL SECTION DATA TO ESTIMATE THE LOW-SPEED WING LIFT COEFFICIENT AT WHICH SECTION STALL FIRST APPEARS ON A SWEPT WING. Ralph L. Maki. July 1951. 37p. diagrs., photo., 4 tabs. (NACA RM A51E15)

LOW-SPEED INVESTIGATION OF SEVERAL TYPES OF SPLIT FLAP ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0 x 10^6. Stanley H. Spooner and Ernst F. Mollenberg. July 1951. 41p. diagrs., photo., tab. (NACA RM L51D20)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF SINGLE SLOTTED AND DOUBLE SLOTTED FLAPS ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.0 x 10^6. Ernst F. Mollenberg and Stanley H. Spooner. September 1951. 23p. diagrs., photos., 3 tabs. (NACA RM L51E24)

INVESTIGATION OF LOW-SPEED LATERAL CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A 20-PERCENT-CHORD PLAIN AILERON ON A 47.7° SWEPTBACK WING OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0 x 10^6. William M. Hadaway and Reino J. Salmi. October 1951. 31p. diagrs. (NACA RM L51F22)

COMPARISON OF SEMISPAN AND FULL-SPAN TESTS OF A 47.5° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS AND HAVING DROOPED-NOSE FLAPS, TRAILING-EDGE FLAPS, AND AILERONS. Stanley Lipson and U. Reed Barnett, Jr. December 1951. 60p. photos., diagrs. (NACA RM L51H15)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

STUDIES OF THE FLOW FIELD BEHIND A LARGE SCALE 47.5° SWEPTBACK WING HAVING CIRCULAR-ARC AIRFOIL SECTIONS AND EQUIPPED WITH DROOPED-NOSE AND PLAIN FLAPS. Roy H. Lange and Marvin P. Fink. March 1952. 57p. diagrs., photos., tab. (NACA RM L51L12)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

EFFECTS OF SEVERAL HIGH-LIFT AND STALL-CONTROL DEVICES ON THE AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPTBACK WING. U. Reed Barnett, Jr. and Stanley Lipson. September 1952. 39p. diagrs., photo. (NACA RM L52D17a)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

THE LOW-SPEED LIFT AND PITCHING-MOMENT CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AS DETERMINED FROM PRESSURE DISTRIBUTIONS AT A REYNOLDS NUMBER OF 4.0 x 10^6. Thomas V. Bollech and William M. Hadaway. January 1953. 57p. diagrs., photo. (NACA RM L52K26)

CONTROLS (1.2.2.4)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LATERAL CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet and M. J. Queijo. November 27, 1951. 50p. diagrs., photos. (NACA RM L51I10)

METHOD FOR CALCULATING LIFT DISTRIBUTIONS FOR UNSWEPT WINGS WITH FLAPS OR AILERONS BY USE OF NONLINEAR SECTION LIFT DATA. James C. Sivells and Gertrude C. Westrick. 1952. ii, 25p. diagrs., 13 tabs. (NACA Rept. 1090. Formerly TN 2283)

Flap Type
(1.2.2.4.1)

TESTS OF A HORIZONTAL-TAIL MODEL THROUGH THE TRANSONIC SPEED RANGE BY THE NACA WING-FLOW METHOD. Richard E. Adams and Norman S. Silsby. April 11, 1947. 24p. diagrs., photos., tab. (NACA RM L7C25a)

FREE-FLIGHT INVESTIGATION OF CONTROL EFFECTIVENESS OF FULL-SPAN 0.2-CHORD PLAIN AILERONS AT HIGH SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE SOME EFFECTS OF SECTION THICKNESS AND WING SWEEPBACK. Carl A. Sandahl and Alfred A. Marino. May 29, 1947. 14p. diagrs., photos., tab. (NACA RM L7D02)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

MEASUREMENTS OF AERODYNAMIC CHARACTERISTICS OF A 35° SWEPTBACK NACA 65-009 AIRFOIL MODEL WITH 1/4-CHORD PLAIN FLAP BY THE NACA WING-FLOW METHOD. Harold I. Johnson. August 5, 1947. 72p. diagrs., photos. (NACA RM L7F13) (Declassified from Restricted, 12/14/53)

PRELIMINARY RESULTS OF A FLIGHT INVESTIGATION TO DETERMINE THE EFFECT OF NEGATIVE FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. December 16, 1947. 22p. diagrs., photos. (NACA RM A7I26) (Declassified from Restricted, 12/14/53)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LATERAL CONTROL CHARACTERISTICS OF PLAIN AILERONS ON A WING WITH VARIOUS AMOUNTS OF SWEEP. Arvo A. Luoma, Ralph P. Bielat and Richard T. Whitcomb. December 19, 1947. 67p. diagrs., 3 tabs. (NACA RM L7I15) (Declassified from Restricted, 10/21/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 34° SWEPTFORWARD WING WITH CIRCULAR-ARC AIRFOIL SECTIONS. D. William Conner and Patrick A. Cancro. January 9, 1948, 35p. diagrs., photos. (NACA RM L7F04a) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A MODEL TAIL PLANE WITH MODIFIED NACA 65-010 SECTIONS AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Andrew Martin. January 12, 1948. 85p. diagrs., photo., 2 tabs. (NACA RM A7J22) (Declassified from Restricted, 12/14/53)

A SUMMARY AND ANALYSIS OF WIND-TUNNEL DATA ON THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF CONTROL SURFACES UP TO A MACH NUMBER OF 0.90. John A. Axelson. April 30, 1948. 43p. diagrs., tab. (NACA RM A7L02) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING WITH A RAKED TIP AND WITH 16.7-PERCENT-CHORD AILERONS HAVING THREE SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. July 21, 1948. 52p. diagrs., photos., 2 tabs. (NACA RM L8F29) (Declassified from Restricted, 12/14/53)

TESTS OF A TRIANGULAR WING OF ASPECT RATIO 2 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. III - THE EFFECTIVENESS AND HINGE MOMENTS OF A SKEWED WING-TIP FLAP. Carl D. Kolbe and Bruce E. Tinling. September 21, 1948. 30p. diagrs., photo. (NACA RM A8E21) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. I - NACA 0012-64 SECTION WITH 20-PERCENT-CHORD PLAIN AILERON AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Walter J. Krumm. September 27, 1948. 28p. diagrs., photo., 2 tabs. (NACA RM A8H12) (Declassified from Restricted, 12/14/53)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. SUBSONIC MACH AND REYNOLDS NUMBER EFFECTS ON THE CHARACTERISTICS OF THE WING AND ON THE EFFECTIVENESS OF AN ELEVON. Robert M. Reynolds and Donald W. Smith. October 11, 1948. 56p. diagrs., photos., tab. (NACA RM A8D20) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF HORN BALANCES ON A 45° SWEPTBACK HORIZONTAL TAIL SURFACE AT HIGH SUBSONIC SPEEDS. Harold S. Johnson and Robert F. Thompson. December 3, 1948. 63p. diagrs., photo., 2 tabs. (NACA RM L8J01) (Declassified from Restricted, 12/14/53)

ANALYTICAL CONSIDERATIONS REGARDING A CONTROL-SURFACE BALANCE ARRANGEMENT FOR SUBSONIC AND SUPERSONIC FLIGHT. Thomas A. Toll and Glenn H. Adair. January 10, 1949. 20p. diagrs. (NACA RM L8L01) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF VARIOUS PLUG-AILERON AND LIFT-FLAP CONFIGURATIONS ON A 42° SWEPTBACK SEMISPAN WING. Leslie E. Schneiter and James M. Watson. January 26, 1949. 45p. diagrs., photos. (NACA RM L8K19) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

Flap Type Controls - Complete Wings (Cont.)

LOW-SPEED INVESTIGATION OF AILERON AND SPOILER CHARACTERISTICS OF A WING HAVING 42° SWEEPBACK OF THE LEADING EDGE AND CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS OF APPROXIMATELY 6.0 x 10^6. Stanley H. Spooner and Robert L. Woods. March 10, 1949. 58p. diagrs., photos. (NACA RM L9A07) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF LOW-SPEED AILERON CONTROL CHARACTERISTICS AT A REYNOLDS NUMBER OF 6,800,000 OF A WING WITH LEADING EDGE SWEPT BACK 42° WITH AND WITHOUT HIGH-LIFT DEVICES. Thomas V. Bollech and George L. Pratt. July 19, 1949. 31p. diagrs., photo. (NACA RM L9E24) (Declassified from Restricted, 12/7/53)

LATERAL-CONTROL INVESTIGATION AT A REYNOLDS NUMBER OF 5,300,000 OF A WING OF ASPECT RATIO 5.8 SWEPTFORWARD 32° AT THE LEADING EDGE. Robert R. Graham. February 7, 1950. 44p. diagrs., photo. (NACA RM L9H18) (Declassified from Restricted, 12/14/53)

THE EFFECT OF AILERON SPAN AND SPANWISE LOCATION ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF AN UNTAPERED WING OF ASPECT RATIO 2.09 AND 45° SWEEPBACK. Rodger L. Naeseth and William M. O'Hare. February 10, 1950. 20p. diagrs. (NACA RM L9L09a) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. II - MODIFIED NACA 0012-64 SECTION WITH A 26.6-PERCENT-CHORD, PLAIN, TRAILING-EDGE AILERON; WING UNSWEPT AND SWEPT BACK 45°. Walter J. Krumm and Joseph L. Anderson. March 15, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A9L27) (Declassified from Restricted, 12/14/53)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5 x 10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED LONGITUDINAL AND LATERAL CONTROL CHARACTERISTICS OF A TRIANGULAR-WING MODEL OF ASPECT RATIO 2.31 HAVING CONSTANT-CHORD CONTROL SURFACES. Walter D. Wolhart and William H. Michael, Jr. September 6, 1950. 41p. diagrs., photo., 2 tabs. (NACA RM L50G17) (Declassified from Restricted, 12/11/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. III - SECTION CHARACTERISTICS, FENCE STUDIES, AND TABULATED PRESSURE COEFFICIENTS WITH MODIFIED NACA 0012-64 SECTION, 26.6-PERCENT-CHORD, PLAIN AILERON, 0° AND 45° SWEEPBACK. Walter J. Krumm and Joseph W. Cleary. November 22, 1950. 79p. diagrs., photos., 4 tabs. (NACA RM A50H17) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF SYMMETRICAL DEFLECTION OF HALF-DELTA TIP CONTROLS ON THE DAMPING IN ROLL AND YAWING MOMENT DUE TO ROLLING OF A TRIANGULAR-WING MODEL. Walter D. Wolhart. April 6, 1951. 17p. diagrs., photos. (NACA RM L51B09) (Declassified from Restricted, 12/11/53)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

INVESTIGATION IN THE AMES 12-FOOT PRESSURE WIND TUNNEL OF A MODEL HORIZONTAL TAIL OF ASPECT RATIO 3 AND TAPER RATIO 0.5 HAVING THE QUARTER-CHORD LINE SWEPT BACK 45°. Carl D. Kolbe and Angelo Bandettini. June 25, 1951. 97p. diagrs., photo., 2 tabs. (NACA RM A51D02)

LOW-SPEED STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet, M. J. Queijo and Jacob H. Lichtenstein. June 27, 1951. 30p. diagrs., photos. (NACA RM L51D20a)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

INVESTIGATION OF LOW-SPEED LATERAL CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A 20-PERCENT-CHORD PLAIN AILERON ON A 47.7° SWEPTBACK WING OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0 x 10^6. William M. Hadaway and Reino J. Salmi. October 1951. 31p. diagrs. (NACA RM L51F22)

COMPARISON OF SEMISPAN AND FULL-SPAN TESTS OF A 47.5° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS AND HAVING DROOPED-NOSE FLAPS, TRAILING-EDGE FLAPS, AND AILERONS. Stanley Lipson and U. Reed Barnett, Jr. December 1951. 60p. photos., diagrs. (NACA RM L51H15)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

Flap Type Controls - Complete Wings (Cont.)

EFFECTS OF SEVERAL HIGH-LIFT AND STALL-CONTROL DEVICES ON THE AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPT-BACK WING. U. Reed Barnett, Jr. and Stanley Lipson. September 1952. 39p. diagrs., photo. (NACA RM L52D17a)

LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF AN UNSWEPT WING WITH HEXAGONAL AIRFOIL SECTIONS AND ASPECT RATIO 4.0 AT A REYNOLDS NUMBER OF 6.2×10^6. William M. Hadaway. March 1953. 24p. diagrs., photo. (NACA RM L53A29)

CALCULATED SPANWISE LIFT DISTRIBUTIONS AND AERODYNAMIC INFLUENCE COEFFICIENTS FOR UNSWEPT WINGS IN SUBSONIC FLOW. Franklin W. Diederich and Martin Zlotnick. September 1953. 120p. diagrs., 11 tabs. (Tables of F matrices to be used with TN 3014 are published separately) (NACA TN 3014)

A CALCULATION STUDY OF WING-AILERON FLUTTER IN TWO DEGREES OF FREEDOM FOR TWO-DIMENSIONAL SUPERSONIC FLOW. Donald S. Woolston and Vera Huckel. April 1954. 26p. diagrs., tab. (NACA TN 3160)

Spoilers (1.2.2.4.2)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

PRELIMINARY INVESTIGATION OF SPOILER LATERAL CONTROL ON A 42° SWEPTBACK WING AT TRANSONIC SPEEDS. Leslie E. Schneiter and Howard L. Ziff. August 12, 1947. 13p. diagrs. (NACA RM L7F19) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF VARIOUS PLUG-AILERON AND LIFT-FLAP CONFIGURATIONS ON A 42° SWEPTBACK SEMI-SPAN WING. Leslie E. Schneiter and James M. Watson. January 26, 1949. 45p. diagrs., photos. (NACA RM L8K19) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

LOW-SPEED INVESTIGATION OF AILERON AND SPOILER CHARACTERISTICS OF A WING HAVING 42° SWEEPBACK OF THE LEADING EDGE AND CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS OF APPROXIMATELY 6.0×10^6. Stanley H. Spooner and Robert L. Woods. March 10, 1949. 58p. diagrs., photos. (NACA RM L9A07) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION AT A REYNOLDS NUMBER OF 5,300,000 OF A WING OF ASPECT RATIO 5.8 SWEPTFORWARD 32° AT THE LEADING EDGE. Robert R. Graham. February 7, 1950. 44p. diagrs., photo. (NACA RM L9H18) (Declassified from Restricted, 12/14/53)

EFFECTS OF PLAIN AND STEP SPOILER LOCATION AND PROJECTION ON THE LATERAL CONTROL CHARACTERISTICS OF A PLAIN AND FLAPPED 42° SWEPTBACK WING AT A REYNOLDS NUMBER OF 6.8×10^6. Thomas V. Bollech and George L. Pratt. February 14, 1950. 43p. diagrs., photos. (NACA RM L9L20a) (Declassified from Restricted, 12/7/53)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

All-Movable (1.2.2.4.3)

INVESTIGATION AT LOW SPEED OF THE DOWNWASH, SIDEWASH, AND WAKE CHARACTERISTICS BEHIND A LARGE-SCALE TRIANGULAR WING, INCLUDING THE EFFECTS OF YAW, FULL-SPAN TRAILING-EDGE FLAPS, AND TWO LEADING-EDGE MODIFICATIONS. Edward F. Whittle, Jr. and John G. Hawes. October 27, 1952. 65p. diagrs., photos., tab. (NACA RM L52H19)

REYNOLDS NUMBER EFFECTS (1.2.2.5)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

Reynolds Number Effects - Complete Wings (Cont.)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPT-BACK WING WITH ASPECT RATIO OF 3.5 AND NACA 2S-50(05)-50(05) AIRFOIL SECTIONS. Anthony J. Proterra. August 4, 1947. 21p. diagrs., photo. (NACA RM L7C11) (Declassified from Restricted, 12/14/53)

MEASUREMENTS OF AERODYNAMIC CHARACTERISTICS OF A 35° SWEPTBACK NACA 65-009 AIRFOIL MODEL WITH 1/4-CHORD PLAIN FLAP BY THE NACA WING-FLOW METHOD. Harold I. Johnson. August 5, 1947. 72p. diagrs., photos. (NACA RM L7F13) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS AND SIDEWASH ANGLES OF A 42° SWEPTBACK CIRCULAR-ARC WING WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT A REYNOLDS NUMBER OF 5,300,000. Reino J. Salmi and James E. Fitzpatrick. December 10, 1947. 38p. diagrs., photos., tab. (NACA RM L7I30) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. I - CHARACTERISTICS OF A PLAIN WING. Ben H. Johnson, Jr. June 2, 1948. 37p. diagrs., photo. (NACA RM A8D07) (Declassified from Restricted, 12/14/53)

FULL-SCALE INVESTIGATION OF AN EQUILATERAL TRIANGULAR WING HAVING 10-PERCENT-THICK BICONVEX AIRFOIL SECTIONS. Edward F. Whittle, Jr. and J. Calvin Lovell. September 30, 1948. 32p. diagrs., photos. (NACA RM L8G05) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS OF A 52° SWEPTBACK WING OF NACA 64_1-112 SECTION WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT REYNOLDS NUMBERS FROM 1.93×10^6 TO 6.00×10^6. Reino J. Salmi. November 8, 1948. 33p. diagrs., photos. (NACA RM L8H12) (Declassified from Restricted, 12/7/53)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. SUBSONIC MACH AND REYNOLDS NUMBER EFFECTS ON THE CHARACTERISTICS OF THE WING AND ON THE EFFECTIVENESS OF AN ELEVON. Robert M. Reynolds and Donald W. Smith. October 11, 1948. 56p. diagrs., photos., tab. (NACA RM A8D20) (Declassified from Restricted, 12/14/53)

EFFECT OF LEADING-EDGE HIGH-LIFT DEVICES AND SPLIT FLAPS ON THE MAXIMUM-LIFT AND LATERAL CHARACTERISTICS OF A RECTANGULAR WING OF ASPECT RATIO 3.4 WITH CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 2.9×10^6 TO 8.4×10^6. Roy H. Lange and Ralph W. May, Jr. November 10, 1948. 70p. diagrs., photos. (NACA RM L8D30) (Declassified from Restricted, 12/14/53)

STATIC LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 52° SWEPTBACK WING OF ASPECT RATIO 2.88 AT REYNOLDS NUMBERS FROM 2,000,000 TO 11,000,000. James E. Fitzpatrick and Gerald V. Foster. November 16, 1948. 21p. diagrs., photo. (NACA RM L8H25) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN STRAIGHT WING OF ASPECT RATIO 4 BY THE NACA WING-FLOW METHOD. LIFT AND PITCHING-MOMENT CHARACTERISTICS OF THE WING ALONE. George A. Rathert, Jr., Carl M. Hanson and L. Stewart Rolls. February 14, 1949. 37p. diagrs., photos. (NACA RM A8L20) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF A 6-PERCENT-THICK SYMMETRICAL DOUBLE-WEDGE AIRFOIL AT TRANSONIC SPEEDS FROM TESTS BY THE NACA WING-FLOW METHOD. Lindsay J. Lina. March 4, 1949. 27p. diagrs. (NACA RM L9A12) (Declassified from Confidential, 1/8/54)

COMPARISON OF SEMISPAN DATA OBTAINED IN THE LANGLEY TWO-DIMENSIONAL LOW-TURBULENCE PRESSURE TUNNEL AND FULL-SPAN DATA OBTAINED IN THE LANGLEY 19-FOOT PRESSURE TUNNEL FOR A WING WITH 40° SWEEPBACK OF THE 0.27-CHORD LINE. Jones F. Cahill. April 22, 1949. 33p. diagrs., photo. (NACA RM L9B25a) (Declassified from Restricted, 12/14/53)

LOW-SPEED PRESSURE-DISTRIBUTION AND FLOW INVESTIGATION FOR A LARGE PITCH AND YAW RANGE OF THREE LOW-ASPECT-RATIO POINTED WINGS HAVING LEADING EDGE SWEPT BACK 60° AND BICONVEX SECTIONS. Ralph W. May, Jr. and John G. Hawes. November 18, 1949. 109p. diagrs., photos., tab. (NACA RM L9J07) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8×10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

AN ANALYSIS OF THE FORCES AND PRESSURE DISTRIBUTION ON A WING WITH THE LEADING EDGE SWEPT BACK 37.25°. George G. Edwards and Frederick W. Boltz. March 30, 1950. 102p. diagrs., photos., 2 tabs. (NACA RM A9K01) (Declassified from Restricted, 12/14/53)

LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS WITH ASPECT RATIOS OF 5.1 AND 6.0 AT REYNOLDS NUMBERS UP TO 10×10^6. Reino J. Salmi and Robert J. Carros. March 30, 1950. 25p. diagrs., photo. (NACA RM L50A04) (Declassified from Restricted, 12/7/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4×10^6 TO 6.0×10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A CIRCULAR-ARC 52° SWEPTBACK WING OF ASPECT RATIO 2.84 WITH AND WITHOUT LEADING-EDGE AND TRAILING-EDGE FLAPS AT REYNOLDS NUMBERS FROM 1.6×10^6 TO 9.7×10^6. Gerald V. Foster and Roland F. Griner. August 11, 1950. 40p. diagrs., photo., tab. (NACA RM L50F16a) (Declassified from Restricted, 12/11/53)

Reynolds Number Effects - Complete Wings (Cont.)

EFFECTS OF LEADING-EDGE DEVICES AND TRAILING-EDGE FLAPS ON LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS OF ASPECT RATIOS 5.1 AND 6.0 AT A REYNOLDS NUMBER OF 6.0 x 10^6. Reino J. Salmi. August 30, 1950. 105p. diagrs., photos., tab. (NACA RM L50F20) (Declassified from Restricted, 12/7/53)

POSITIONING INVESTIGATION OF SINGLE SLOTTED FLAPS ON A 47.7° SWEPTBACK WING AT REYNOLDS NUMBERS OF 4.0 x 10^6 AND 6.0 x 10^6. Stanley H. Spooner and Ernst F. Mollenberg. October 9, 1950. 36p. diagrs., photo., 3 tabs. (NACA RM L50H29) (Declassified from Restricted, 12/11/53)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT WINGS HAVING NACA 65A006 AIRFOIL SECTIONS. (Revised) Jones F. Cahill and Stanley M. Gottlieb. October 17, 1950. 63p. diagrs., photos. (NACA RM L50F16. Formerly RM L9J20) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF TWO LOW-ASPECT-RATIO WINGS CAMBERED AND TWISTED TO PROVIDE A UNIFORM LOAD AT A SUPERSONIC FLIGHT CONDITION. Lewis R. Fisher. June 6, 1951. 24p. diagrs., photos. (NACA RM L51C20)

INVESTIGATION IN THE AMES 12-FOOT PRESSURE WIND TUNNEL OF A MODEL HORIZONTAL TAIL OF ASPECT RATIO 3 AND TAPER RATIO 0.5 HAVING THE QUARTER-CHORD LINE SWEPT BACK 45°. Carl D. Kolbe and Angelo Bandettini. June 25, 1951. 97p. diagrs., photo., 2 tabs. (NACA RM A51D02)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A PLANE WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Carl D. Kolbe and Frederick W. Boltz. October 1951. 159p. diagrs., photo., 22 tabs. (NACA RM A51G31)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

EXPERIMENTAL INVESTIGATION OF BASE PRESSURE ON BLUNT-TRAILING-EDGE WINGS AT SUPERSONIC VELOCITIES. Dean R. Chapman, William R. Wimbrow and Robert H. Kester. 1952. ii, 19p. diagrs., photos., tab. (NACA Rept. 1109. Formerly TN 2611)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING LEADING-EDGE MODIFICATIONS AND SEVERAL OUTBOARD FIN ARRANGEMENTS ON THE STATIC STABILITY CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR WING. H. Clyde McLemore. January 1952. 64p. diagrs., photo., tab. (NACA RM L51J05)

FORCE AND PRESSURE INVESTIGATION AT LARGE SCALE OF A 49° SWEPTBACK SEMISPAN WING HAVING NACA 65A006 SECTIONS AND EQUIPPED WITH VARIOUS SLAT ARRANGEMENTS. Stanley Lipson and U. Reed Barnett, Jr. January 1952. 60p. diagrs., photo., tab. (NACA RM L51K26)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS, AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF NACELLES ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 60° SWEPTBACK DELTA-WING - FUSELAGE COMBINATION WITH NACA 65A003 AIRFOIL SECTIONS. William I. Scallion. July 1952. 21p. diagrs., photos., 3 tabs. (NACA RM L52F04)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

MACH NUMBER EFFECTS (1.2.2.6)

DRAG MEASUREMENTS AT TRANSONIC SPEEDS OF NACA 65-009 AIRFOILS MOUNTED ON A FREELY FALLING BODY TO DETERMINE THE EFFECTS OF SWEEPBACK AND ASPECT RATIO. Charles W. Mathews and Jim Rogers Thompson. January 22, 1947. 14p. diagrs., photos. (NACA RM L6K08c) (Declassified from Confidential, 11/10/53)

Mach Number Effects - Complete Wings (Cont.)

AN INVESTIGATION OF THE EFFECTS OF SWEEP ON THE CHARACTERISTICS OF A HIGH-ASPECT-RATIO WING IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. February 14, 1947. 74p. diagrs., photos., 4 tabs. (NACA RM L6J01a) (Declassified from Restricted, 8/14/53)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING ASPECT RATIOS OF 1.5 AND 2.7 AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Sidney R. Alexander and Ellis Katz. February 24, 1947. 19p. diagrs., photos. (NACA RM L6J16) (Declassified from Confidential, 10/21/53)

DRAG MEASUREMENTS OF SYMMETRICAL CIRCULAR-ARC AND NACA 65-009 RECTANGULAR AIRFOILS HAVING AN ASPECT RATIO OF 2.7 AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Sidney R. Alexander. March 7, 1947. 10p. diagrs., photo. (NACA RM L6J14) (Declassified from Confidential, 11/10/53)

FREE-FALL MEASUREMENTS AT TRANSONIC VELOCITIES OF THE DRAG OF A WING-BODY CONFIGURATION CONSISTING OF A 45° SWEPT-BACK WING MOUNTED FORWARD OF THE MAXIMUM DIAMETER ON A BODY OF FINENESS RATIO 12. Charles W. Mathews and Jim Rogers Thompson. April 2, 1947. 18p. diagrs., photo. (NACA RM L6L26) (Declassified from Confidential, 11/10/53)

TESTS OF A HORIZONTAL-TAIL MODEL THROUGH THE TRANSONIC SPEED RANGE BY THE NACA WING-FLOW METHOD. Richard E. Adams and Norman S. Silsby. April 11, 1947. 24p. diagrs., photos., tab. (NACA RM L7C25a)

AN INVESTIGATION OF THE DOWNWASH AT THE PROBABLE TAIL LOCATION BEHIND A HIGH-ASPECT-RATIO WING IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. April 22, 1947. 12p. diagrs. (NACA RM L7B12) (Declassified from Restricted, 10/21/53)

DRAG CHARACTERISTICS OF RECTANGULAR AND SWEPT-BACK NACA 65-009 AIRFOILS HAVING VARIOUS ASPECT RATIOS AS DETERMINED BY FLIGHT TESTS AT SUPERSONIC SPEEDS. Warren A. Tucker and Robert L. Nelson. April 22, 1947. 15p. diagrs., photos. (NACA RM L7C05) (Declassified from Confidential, 1/8/54)

FREE-FLIGHT INVESTIGATION OF CONTROL EFFECTIVENESS OF FULL-SPAN 0.2-CHORD PLAIN AILERONS AT HIGH SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE SOME EFFECTS OF SECTION THICKNESS AND WING SWEEPBACK. Carl A. Sandahl and Alfred A. Marino. May 29, 1947. 14p. diagrs., photos., tab. (NACA RM L7D02)

SOME PRESSURE-DISTRIBUTION MEASUREMENTS ON A SWEPT WING AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. J. Ford Johnston and Edward C. B. Danforth. June 6, 1947. 21p. diagrs., photos. (NACA RM L7D22)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

RESULTS OF FLIGHT TESTS AT SUPERSONIC SPEEDS TO DETERMINE THE EFFECT OF BODY NOSE FINENESS RATIO ON BODY AND WING DRAG. Ellis R. Katz. June 26, 1947. 14p. diagrs., photo. (NACA RM L7B19) (Declassified from Confidential, 10/21/53)

MEASUREMENTS OF AERODYNAMIC CHARACTERISTICS OF A 35° SWEPTBACK NACA 65-009 AIRFOIL MODEL WITH 1/4-CHORD PLAIN FLAP BY THE NACA WING-FLOW METHOD. Harold I. Johnson. August 5, 1947. 72p. diagrs., photos. (NACA RM L7F13) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF SPOILER LATERAL CONTROL ON A 42° SWEPTBACK WING AT TRANSONIC SPEEDS. Leslie E. Schneiter and Howard L. Ziff. August 12, 1947. 13p. diagrs. (NACA RM L7F19) (Declassified from Restricted, 12/14/53)

PRELIMINARY TESTS TO DETERMINE THE MAXIMUM LIFT OF WINGS AT SUPERSONIC SPEEDS. James J. Gallagher and James N. Mueller. December 11, 1947. 41p. diagrs., photos., 3 tabs. (NACA RM L7J10) (Declassified from Restricted, 12/14/53)

PRELIMINARY RESULTS OF A FLIGHT INVESTIGATION TO DETERMINE THE EFFECT OF NEGATIVE FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. December 16, 1947. 22p. diagrs., photos. (NACA RM A7I26) (Declassified from Restricted, 12/14/53)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LATERAL CONTROL CHARACTERISTICS OF PLAIN AILERONS ON A WING WITH VARIOUS AMOUNTS OF SWEEP. Arvo A. Luoma, Ralph P. Bielat and Richard T. Whitcomb. December 19, 1947. 67p. diagrs., 3 tabs. (NACA RM L7I15) (Declassified from Restricted, 10/21/53)

A COMPILATION OF THE PRESSURES MEASURED ON A WING AND AILERON WITH VARIOUS AMOUNTS OF SWEEP IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. April 13, 1948. 84p. diagrs., 78 tabs. (NACA RM L8A30a) (Declassified from Restricted, 12/14/53)

A SUMMARY AND ANALYSIS OF WIND-TUNNEL DATA ON THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF CONTROL SURFACES UP TO A MACH NUMBER OF 0.90. John A. Axelson. April 30, 1948. 43p. diagrs., tab. (NACA RM A7L02) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE DOWNWASH BEHIND A HIGH-ASPECT-RATIO WING WITH VARIOUS AMOUNTS OF SWEEP IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. May 11, 1948. 25p. diagrs., 2 tabs. (NACA RM L8C12) (Declassified from Restricted, 12/14/53)

Mach Number Effects - Complete Wings (Cont.)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. I - CHARACTERISTICS OF A PLAIN WING. Ben H. Johnson, Jr. June 2, 1948. 37p. diagrs., photo. (NACA RM A8D07) (Declassified from Restricted, 12/14/53)

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT TRANSONIC SPEEDS OF A SEMISPAN AIRPLANE MODEL HAVING A 45° SWEPTBACK WING AND TAIL AS OBTAINED BY THE TRANSONIC-BUMP METHOD. M. Leroy Spearman. June 30, 1948. 21p. diagrs., photo., tab. (NACA RM L8C11) (Declassified from Restricted, 12/14/53)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

TESTS OF A TRIANGULAR WING OF ASPECT RATIO 2 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. III - THE EFFECTIVENESS AND HINGE MOMENTS OF A SKEWED WING-TIP FLAP. Carl D. Kolbe and Bruce E. Tinling. September 21, 1948. 30p. diagrs., photo. (NACA RM A8E21) (Declassified from Restricted, 12/14/53)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. SUBSONIC MACH AND REYNOLDS NUMBER EFFECTS ON THE CHARACTERISTICS OF THE WING AND ON THE EFFECTIVENESS OF AN ELEVON. Robert M. Reynolds and Donald W. Smith. October 11, 1948. 56p. diagrs., photos., tab. (NACA RM A8D20) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF HORN BALANCES ON A 45° SWEPTBACK HORIZONTAL TAIL SURFACE AT HIGH SUBSONIC SPEEDS. Harold S. Johnson and Robert F. Thompson. December 3, 1948. 63p. diagrs., photo., 2 tabs. (NACA RM L8J01) (Declassified from Restricted, 12/14/53)

ANALYTICAL CONSIDERATIONS REGARDING A CONTROL-SURFACE BALANCE ARRANGEMENT FOR SUBSONIC AND SUPERSONIC FLIGHT. Thomas A. Toll and Glenn H. Adair. January 10, 1949. 20p. diagrs. (NACA RM L8L01) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN WING OF ASPECT RATIO 4 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. IV - THE EFFECT OF A CONSTANT-CHORD LEADING-EDGE FLAP AT HIGH SUBSONIC SPEEDS. Ben H. Johnson, Jr. and Verlin D. Reed. January 20, 1949. 30p. diagrs., photo. (NACA RM A8K19) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF A THIN STRAIGHT WING OF ASPECT RATIO 4 BY THE NACA WING-FLOW METHOD. LIFT AND PITCHING-MOMENT CHARACTERISTICS OF THE WING ALONE. George A. Rathert, Jr., Carl M. Hanson and L. Stewart Rolls. February 14, 1949. 37p. diagrs., photos. (NACA RM A8L20) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF A 6-PERCENT-THICK SYMMETRICAL DOUBLE-WEDGE AIRFOIL AT TRANSONIC SPEEDS FROM TESTS BY THE NACA WING-FLOW METHOD. Lindsay J. Lina. March 4, 1949. 27p. diagrs. (NACA RM L9A12) (Declassified from Confidential, 1/8/54)

EFFECTS OF WING-TIP TURRETS ON THE AERODYNAMIC CHARACTERISTICS OF A TYPICAL BOMBER-WING MODEL. Lee E. Boddy and Fred B. Sutton. March 28, 1949. 22p. diagrs., photos. (NACA RM A9B09) (Declassified from Restricted, 12/10/53)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE CHARACTERISTICS OF AN UNSWEPT WING OF ASPECT RATIO 4.01 IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat and Maurice S. Cahn. November 8, 1949. 32p. diagrs., 2 tabs. (NACA RM L9H23) (Declassified from Restricted, 12/14/53)

AN ANALYSIS OF THE FORCES AND PRESSURE DISTRIBUTION ON A WING WITH THE LEADING EDGE SWEPT BACK 37.25°. George G. Edwards and Frederick W. Boltz. March 30, 1950. 102p. diagrs., photos., 2 tabs. (NACA RM A9K01) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF ASPECT RATIO AND MACH NUMBER ON THE FLUTTER OF CANTILEVER WINGS. E. Widmayer, Jr., W. T. Lauten, Jr. and S. A. Clevenson. June 1, 1950. 20p. diagrs., 2 tabs. (NACA RM L50C15a) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF COMPRESSIBILITY ON THE PRESSURES ON A BODY OF REVOLUTION AND ON THE AERODYNAMIC CHARACTERISTICS OF A WING-NACELLE COMBINATION CONSISTING OF THE BODY OF REVOLUTION MOUNTED ON A SWEPT-BACK WING. Frederick W. Boltz and Benjamin H. Beam. July 26, 1950. 68p. diagrs., photos., 2 tabs. (NACA RM A50E09) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A JET-ENGINE NACELLE ON THE AERODYNAMIC CHARACTERISTICS OF A 37.25° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Frederick W. Boltz and Donald A. Buell. October 24, 1950. 28p. diagrs., photos. (NACA RM A50H23) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

INVESTIGATION IN THE AMES 12-FOOT PRESSURE WIND TUNNEL OF A MODEL HORIZONTAL TAIL OF ASPECT RATIO 3 AND TAPER RATIO 0.5 HAVING THE QUARTER-CHORD LINE SWEPT BACK 45°. Carl D. Kolbe and Angelo Bandettini. June 25, 1951. 97p. diagrs., photo., 2 tabs. (NACA RM A51D02)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A PLANE WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Carl D. Kolbe and Frederick W. Boltz. October 1951. 159p. diagrs., photo., 22 tabs. (NACA RM A51G31)

Mach Number Effects - Complete Wings (Cont.)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

COMPARISON OF TRANSONIC CHARACTERISTICS OF LIFTING WINGS FROM EXPERIMENTS IN A SMALL SLOTTED TUNNEL AND THE LANGLEY HIGH-SPEED 7- BY 10-FOOT TUNNEL. William C. Sleeman, Jr., Paul L. Klevatt and Edward L. Linsley. November 5, 1951. 44p. diagrs., photos. (NACA RM L51F14) (Declassified from Confidential, 3/10/54)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

AIR FORCES AND MOMENTS ON TRIANGULAR AND RELATED WINGS WITH SUBSONIC LEADING EDGES OSCILLATING IN SUPERSONIC POTENTIAL FLOW. Charles E. Watkins and Julian H. Berman. 1952. ii, 25p. diagrs., tab. (NACA Rept. 1099. Formerly TN 2457)

CHORDWISE AND COMPRESSIBILITY CORRECTIONS TO SLENDER-WING THEORY. Harvard Lomax and Loma Sluder. 1952. ii, 19p. diagrs., 4 tabs. (NACA Rept. 1105. Formerly TN 2295)

EXPERIMENTAL INVESTIGATION OF BASE PRESSURE ON BLUNT-TRAILING-EDGE WINGS AT SUPERSONIC VELOCITIES. Dean R. Chapman, William R. Wimbrow and Robert H. Kester. 1952. ii, 19p. diagrs., photos., tab. (NACA Rept. 1109. Formerly TN 2611)

NOTES ON THE GUST PROBLEM FOR HIGH-SPEED LOW-ALTITUDE BOMBERS. Langley Gust Loads Branch. June 5, 1952. 23p. diagrs., 3 tabs. (NACA RM L52E22) (Declassified from Secret, 11/10/53)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT-RATIO-20 WING HAVING THICK AIRFOIL SECTIONS AND EMPLOYING BOUNDARY-LAYER CONTROL BY SUCTION. Bennie W. Cocke, Jr., Marvin P. Fink and Stanley M. Gottlieb. August 1953. 63p. diagrs., photos., 2 tabs. (NACA TN 2980)

VELOCITY POTENTIAL AND AIR FORCES ASSOCIATED WITH A TRIANGULAR WING IN SUPERSONIC FLOW, WITH SUBSONIC LEADING EDGES, AND DEFORMING HARMONICALLY ACCORDING TO A GENERAL QUADRATIC EQUATION. Charles E. Watkins and Julian H. Berman. September 1953. 61p. diagrs., tab. (NACA TN 3009)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

ROLLING EFFECTIVENESS AND AILERON REVERSAL OF RECTANGULAR WINGS AT SUPERSONIC SPEEDS. John M. Hedgepeth and Robert J. Kell. April 1954. 79p. diagrs., 4 tabs. (NACA TN 3067)

LIFT AND MOMENT COEFFICIENTS EXPANDED TO THE SEVENTH POWER OF FREQUENCY FOR OSCILLATING RECTANGULAR WINGS IN SUPERSONIC FLOW AND APPLIED TO A SPECIFIC FLUTTER PROBLEM. Herbert C. Nelson, Ruby A. Rainey and Charles E. Watkins. April 1954. 53p. diagrs. (NACA TN 3076)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

WAKE
(1.2.2.7)

AN INVESTIGATION OF THE DOWNWASH AT THE PROBABLE TAIL LOCATION BEHIND A HIGH-ASPECT-RATIO WING IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. April 22, 1947. 12p. diagrs. (NACA RM L7B12) (Declassified from Restricted, 10/21/53)

AN ANALYSIS OF THE EFFECTS OF WING ASPEC RATIO AND TAIL LOCATION ON STATIC LONGITUDINAL STABILITY BELOW THE MACH NUMBER OF LIFT DIVERGENCE. John S. Axelson and J. Conrad Crown. January 9, 1948. 14p. diagrs. (NACA RM A7J13) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE DOWNWASH BEHIND A HIGH-ASPECT-RATIO WING WITH VARIOUS AMOUNTS OF SWEEP IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. May 11, 1948. 25p. diagrs., 2 tabs. (NACA RM L8C12) (Declassified from Restricted, 12/14/53)

DOWNWASH, SIDEWASH, AND WAKE SURVEYS BEHIND A 42° SWEPTBACK WING AT A REYNOLDS NUMBER OF 6.8×10^6 WITH AND WITHOUT A SIMULATED GROUND. G. Chester Furlong and Thomas V. Bollech. December 13, 1948. 77p. diagrs., photos., tab. (NACA RM L8G22) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE CHARACTERISTICS OF AN UNSWEPT WING OF ASPECT RATIO 4.01 IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Ralph P. Bielat and Maurice S. Cahn. November 8, 1949. 32p. diagrs., 2 tabs. (NACA RM L9H23) (Declassified from Restricted, 12/14/53)

Wake - Complete Wings (Cont.)

STUDIES OF THE FLOW FIELD BEHIND A LARGE SCALE 47.5° SWEPTBACK WING HAVING CIRCULAR-ARC AIRFOIL SECTIONS AND EQUIPPED WITH DROOPED-NOSE AND PLAIN FLAPS. Roy H. Lange and Marvin P. Fink. March 1952. 57p. diagrs., photos., tab. (NACA RM L51L12)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF PROPELLER OPERATION AT HIGH THRUST ON THE LONGITUDINAL STABILITY AND TRIM OF A TWIN-ENGINE AIRPLANE CONFIGURATION. William C. Sleeman, Jr. and Edward L. Linsley. July 1952. 66p. diagrs., photos. (NACA RM L52D04)

INVESTIGATION AT LOW SPEED OF THE DOWNWASH, SIDEWASH, AND WAKE CHARACTERISTICS BEHIND A LARGE-SCALE TRIANGULAR WING, INCLUDING THE EFFECTS OF YAW, FULL-SPAN TRAILING-EDGE FLAPS, AND TWO LEADING-EDGE MODIFICATIONS. Edward F. Whittle, Jr. and John G. Hawes. October 27, 1952. 65p. diagrs., photos., tab. (NACA RM L52H19)

LINEARIZED POTENTIAL THEORY OF PROPELLER INDUCTION IN A COMPRESSIBLE FLOW. Robert E. Davidson. September 1953. 47p. diagrs., 5 tabs. (NACA TN 2983)

AN ANALYTICAL STUDY OF THE EFFECT OF AIRPLANE WAKE ON THE LATERAL DISPERSION OF AERIAL SPRAYS. Wilmer H. Reed, III. October 1953. 46p. diagrs., 3 tabs. (NACA TN 3032)

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

DOWNWASH CHARACTERISTICS AND VORTEX-SHEET SHAPE BEHIND A 63° SWEPT-BACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.1 x 10^6. William H. Tolhurst, Jr. May 1954. 45p. diagrs., photo. (NACA TN 3175. Formerly RM A52J08)

BOUNDARY LAYER
(1.2.2.8)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60° DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

LAMINAR BOUNDARY LAYER ON CONE IN SUPERSONIC FLOW AT LARGE ANGLE OF ATTACK. Franklin K. Moore. Appendix B: NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn Albers. 1953. ii, 13p. diagrs. (NACA Rept. 1132. Formerly TN 2844)

THE AERODYNAMIC CHARACTERISTICS OF AN ASPECT-RATIO-20 WING HAVING THICK AIRFOIL SECTIONS AND EMPLOYING BOUNDARY-LAYER CONTROL BY SUCTION. Bennie W. Cocke, Jr., Marvin P. Fink and Stanley M. Gottlieb. August 1953. 63p. diagrs., photos., 2 tabs. (NACA TN 2980)

EFFECTS OF FINITE SPAN ON THE SECTION CHARACTERISTICS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 6. Lynn W. Hunton. September 1953. 32p. diagrs. (NACA TN 3008. Formerly RM A52A10)

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00 AND 0.25 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen and Victor L. Vaughan, Jr. March 1954. 64p. diagrs., photos. (NACA TN 3079)

Characteristics
(1.2.2.8.1)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF LOW-SPEED TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Virgil A. Sandborn. October 1953. 37p. diagrs., photos. (NACA TN 3031)

Control
(1.2.2.8.2)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

Control - Complete Wings (Cont.)

EFFECTS OF SEVERAL HIGH-LIFT AND STALL-CONTROL DEVICES ON THE AERODYNAMIC CHARACTERISTICS OF A SEMISPAN 49° SWEPTBACK WING. U. Reed Barnett, Jr. and Stanley Lipson. September 1952. 39p. diagrs., photo. (NACA RM L52D17a)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

THE RESISTANCE TO AIR FLOW OF POROUS MATERIALS SUITABLE FOR BOUNDARY-LAYER-CONTROL APPLICATIONS USING AREA SUCTION. Robert E. Dannenberg, James A. Weiberg and Bruno J. Gambucci. January 1954. 21p. diagrs., photos., tab. (NACA TN 3094)

A FLIGHT INVESTIGATION OF THE PRACTICAL PROBLEMS ASSOCIATED WITH POROUS-LEADING-EDGE SUCTION. Paul A. Hunter and Harold I. Johnson. February 1954. 42p. diagrs., photos., 4 tabs. (NACA TN 3062)

Bodies
(1.3)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF 30°, 60°, AND 90° CONE CYLINDERS AT MACH NUMBERS BETWEEN 1.5 AND 8.2. Alvin Seiff and Simon C. Sommer. April 1952. 25p. photos., diagrs. (NACA RM A52A14b)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SUPPORT INTERFERENCE ON THE PRESSURE DISTRIBUTION OF A BODY OF REVOLUTION AT A MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 to 14×10^6. L. Eugene Baughman and John R. Jack. August 1953. 18p. diagrs., photo., tab. (NACA RM E53E28)

INVESTIGATION AT SUPERSONIC SPEEDS OF THE WAVE DRAG OF SEVEN BOATTAIL BODIES OF REVOLUTION DESIGNED FOR MINIMUM WAVE DRAG. August F. Bromm, Jr. and Julia M. Goodwin. December 1953. 14p. diagrs., photo. (NACA TN 3054)

TOOTH-TYPE NOISE-SUPPRESSION DEVICES ON A FULL-SCALE AXIAL-FLOW TURBOJET ENGINE. Edmund E. Callaghan, Walton Howes and Warren North. March 1954. 16p. diagrs., photos. (NACA RM E54B01)

THEORY
(1.3.1)

PRESSURE DISTRIBUTIONS OVER A WING-FUSELAGE MODEL AT MACH NUMBERS OF 0.4 TO 0.99 AND AT 1.2. Clarence W. Matthews. November 3, 1948. 24p. diagrs. (NACA RM L8H06) (Declassified from Confidential, 1/8/54)

A METHOD FOR CALCULATING FLOW FIELDS OF COWLINGS WITH KNOWN SURFACE-PRESSURE DISTRIBUTIONS. Robert W. Boswinkle, Jr. November 22, 1948. 23p. diagrs. (NACA RM L8I17) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF NACA RM-10 MISSILE IN 8- BY 6-FOOT SUPERSONIC WIND TUNNEL AT MACH NUMBERS FROM 1.49 TO 1.98. I - PRESENTATION AND ANALYSIS OF PRESSURE MEASUREMENTS (STABILIZING FINS REMOVED). Roger W. Luidens and Paul C. Simon. July 20, 1950. 53p. diagrs., photos. (NACA RM E50D10) (Declassified from Confidential, 3/10/54)

THE EFFECTS OF COMPRESSIBILITY ON THE PRESSURES ON A BODY OF REVOLUTION AND ON THE AERODYNAMIC CHARACTERISTICS OF A WING-NACELLE COMBINATION CONSISTING OF THE BODY OF REVOLUTION MOUNTED ON A SWEPT-BACK WING. Frederick W. Boltz and Benjamin H. Beam. July 26, 1950. 68p. diagrs., photos., 2 tabs. (NACA RM A50E09) (Declassified from Restricted, 12/11/53)

ARRANGEMENT OF BODIES OF REVOLUTION IN SUPERSONIC FLOW TO REDUCE WAVE DRAG. Morris D. Friedman. December 1951. 17p. diagrs. (NACA RM A51I20)

THE LINEARIZED CHARACTERISTICS METHOD AND ITS APPLICATION TO PRACTICAL NON-LINEAR SUPERSONIC PROBLEMS. Antonio Ferri. 1952. ii, 18p. diagrs. (NACA Rept. 1102. Formerly TN 2515)

EXPERIMENTAL INVESTIGATION OF THE DRAG OF 30°, 60°, AND 90° CONE CYLINDERS AT MACH NUMBERS BETWEEN 1.5 AND 8.2. Alvin Seiff and Simon C. Sommer. April 1952. 25p. photos., diagrs. (NACA RM A52A14b)

DISPLACEMENT EFFECT OF A THREE-DIMENSIONAL BOUNDARY LAYER. Franklin K. Moore. 1953. ii, 5p. diagrs. (NACA Rept. 1124. Formerly TN 2722)

LAMINAR BOUNDARY LAYER ON CONE IN SUPERSONIC FLOW AT LARGE ANGLE OF ATTACK. Franklin K. Moore. *Appendix B:* NUMERICAL SOLUTION OF DIFFERENTIAL EQUATIONS. Lynn Albers. 1953. ii, 13p. diagrs. (NACA Rept. 1132. Formerly TN 2844)

A STUDY OF HYPERSONIC SMALL-DISTURBANCE THEORY. Milton D. Van Dyke. May 1954. 51p. diagrs. (NACA TN 3173)

MINIMUM-DRAG DUCTED AND POINTED BODIES OF REVOLUTION BASED ON LINEARIZED SUPERSONIC THEORY. Hermon M. Parker. May 1954. 30p. diagrs. (NACA TN 3189)

SHAPE VARIABLES
(1.3.2)

RESULTS OF TESTS TO DETERMINE THE EFFECT OF A CONICAL WINDSHIELD ON THE DRAG OF A BLUFF BODY AT SUPERSONIC SPEEDS. Sidney R. Alexander. January 14, 1947. 12p. diagrs., photos. (NACA RM L6K08a) (Declassified from Confidential, 10/21/53)

Shape Variables - Bodies (Cont.)

FLIGHT TESTS TO DETERMINE THE EFFECT OF LENGTH OF A CONICAL WINDSHIELD ON THE DRAG OF A BLUFF BODY AT SUPERSONIC SPEEDS. Sidney R. Alexander and Ellis Katz. January 29, 1947. 13p. diagrs., photo. (NACA RM L6J16a) (Declassified from Confidential, 10/21/53)

PRESSURE DISTRIBUTIONS OVER A WING-FUSELAGE MODEL AT MACH NUMBERS OF 0.4 TO 0.99 AND AT 1.2. Clarence W. Matthews. November 3, 1948. 24p. diagrs. (NACA RM L8H06) (Declassified from Confidential, 1/8/54)

FLIGHT INVESTIGATION AT HIGH-SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE ZERO-LIFT DRAG OF BODIES OF REVOLUTION HAVING FINENESS RATIO OF 6.04 AND VARYING POSITIONS OF MAXIMUM DIAMETER. Ellis R. Katz. August 31, 1949. 17p. diagrs., photo. (NACA RM L9F02) (Declassified from Confidential, 1/8/54)

EXPERIMENTAL INVESTIGATION OF RADOME ICING AND ICING PROTECTION. James P. Lewis and Robert J. Blade. January 1953. 60p. diagrs., photos. (NACA RM E52J31)

THE DRAG OF FINITE-LENGTH CYLINDERS DETERMINED FROM FLIGHT TESTS AT HIGH REYNOLDS NUMBERS FOR A MACH NUMBER RANGE FROM 0. 5 TO 1. 3. Clement J. Welsh. June 1953. 12p. diagrs., photo. (NACA TN 2941. Formerly RM L52C31)

THEORETICAL PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR CONICAL BOATTAILS. John R. Jack. July 1953. 14p. diagrs. (NACA TN 2972)

PRELIMINARY RESULTS OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL SPINNER. U. von Glahn. August 1953. 35p. diagrs., photo., 2 tabs. (NACA RM E53F02)

MINIMUM-DRAG DUCTED AND POINTED BODIES OF REVOLUTION BASED ON LINEARIZED SUPERSONIC THEORY. Hermon M. Parker. May 1954. 30p. diagrs. (NACA TN 3189)

FINENESS RATIO
(1. 3. 2. 1)

RESULTS OF FLIGHT TESTS AT SUPERSONIC SPEEDS TO DETERMINE THE EFFECT OF BODY NOSE FINENESS RATIO ON BODY AND WING DRAG. Ellis R. Katz. June 26, 1947. 14p. diagrs., photo. (NACA RM L7B19) (Declassified from Confidential, 10/21/53)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

FLIGHT INVESTIGATIONS AT LOW SUPERSONIC SPEEDS TO DETERMINE THE EFFECTIVENESS OF CONES AND A WEDGE IN REDUCING THE DRAG OF ROUND-NOSE BODIES AND AIRFOILS. Sidney R. Alexander. March 3, 1949. 15p. diagrs., photos. (NACA RM L8L07a) (Declassified from Confidential, 1/8/54)

THE DRAG OF FINITE-LENGTH CYLINDERS DETERMINED FROM FLIGHT TESTS AT HIGH REYNOLDS NUMBERS FOR A MACH NUMBER RANGE FROM 0. 5 TO 1. 3. Clement J. Welsh. June 1953. 12p. diagrs., photo. (NACA TN 2941. Formerly RM L52C31)

DRAG OF CIRCULAR CYLINDERS FOR A WIDE RANGE OF REYNOLDS NUMBERS AND MACH NUMBERS. Forrest E. Gowen and Edward W. Perkins. June 1953. 26p. diagrs., photos. (NACA TN 2960. Formerly RM A52C20)

THEORETICAL PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR CONICAL BOATTAILS. John R. Jack. July 1953. 14p. diagrs. (NACA TN 2972)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

TURBULENT BOUNDARY-LAYER AND SKIN-FRICTION MEASUREMENTS IN AXIAL FLOW ALONG CYLINDERS AT MACH NUMBERS BETWEEN 0.5 AND 3.6. Dean R. Chapman and Robert H. Kester. March 1954. 53p. diagrs., photos., 5 tabs. (NACA TN 3097)

CROSS SECTION
(1. 3. 2. 2)

THE LINEARIZED CHARACTERISTICS METHOD AND ITS APPLICATION TO PRACTICAL NON-LINEAR SUPERSONIC PROBLEMS. Antonio Ferri. 1952. ii, 18p. diagrs. (NACA Rept. 1102. Formerly TN 2515)

THEORETICAL PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR CONICAL BOATTAILS. John R. Jack. July 1953. 14p. diagrs. (NACA TN 2972)

LOW-SPEED DRAG OF CYLINDERS OF VARIOUS SHAPES. Noel K. Delany and Norman E. Sorensen. November 1953. 22p. diagrs., photos., tab. (NACA TN 3038)

THICKNESS DISTRIBUTION
(1. 3. 2. 3)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

Thickness Distribution - Shape Variables (Cont.)

FLIGHT INVESTIGATION AT HIGH-SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE ZERO-LIFT DRAG OF BODIES OF REVOLUTION HAVING FINENESS RATIO OF 6.04 AND VARYING POSITIONS OF MAXIMUM DIAMETER. Ellis R. Katz. August 31, 1949. 17p. diagrs., photo. (NACA RM L9F02) (Declassified from Confidential, 1/8/54)

SURFACE CONDITIONS (1. 3. 2. 4)

EFFECT OF BLADE-SURFACE FINISH ON PERFORMANCE OF A SINGLE-STAGE AXIAL-FLOW COMPRESSOR. Jason J. Moses and George K. Serovy. April 16, 1951. 25p. diagrs., photos., 2 tabs. (NACA RM E51C09) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SUPPORT INTERFERENCE ON THE PRESSURE DISTRIBUTION OF A BODY OF REVOLUTION AT A MACH NUMBER OF 3. 12 AND REYNOLDS NUMBERS FROM 2 x 10^6 to 14 x 10^6. L. Eugene Baughman and John R. Jack. August 1953. 18p. diagrs., photo., tab. (NACA RM E53E28)

FACTORS AFFECTING TRANSITION AT SUPERSONIC SPEEDS. K. R. Czarnecki and Archibald R. Sinclair. November 1953. 13p. diagrs. (NACA RM L53I18a)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 23p. diagrs., photos., tab. (NACA TN 3165. Formerly RM L52E29a)

AN EXTENSION OF THE INVESTIGATION OF THE EFFECTS OF HEAT TRANSFER ON BOUNDARY-LAYER TRANSITION ON A PARABOLIC BODY OF REVOLUTION (NACA RM-10) AT A MACH NUMBER OF 1.61. K. R. Czarnecki and Archibald R. Sinclair. April 1954. 21p. diagrs., photo. (NACA TN 3166. Formerly NACA RM L53B25)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

PROTUBERANCES (1. 3. 2. 5)

EFFECT OF STRUT-MOUNTED WING TANKS ON THE DRAG OF NACA RM-2 TEST VEHICLES IN FLIGHT AT TRANSONIC SPEEDS. Sidney R. Alexander. November 18, 1948. 13p. diagrs., photos. (NACA RM L8H31a) (Declassified from Confidential, 1/8/54)

EFFECT OF ICE AND FROST FORMATIONS ON DRAG OF NACA 65_1-212 AIRFOIL FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Vernon H. Gray and Uwe H. von Glahn. June 1953. 68p. diagrs., photos. (NACA TN 2962)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SUPPORT INTERFERENCE ON THE PRESSURE DISTRIBUTION OF A BODY OF REVOLUTION AT A MACH NUMBER OF 3. 12 AND REYNOLDS NUMBERS FROM 2 x 10^6 to 14 x 10^6. L. Eugene Baughman and John R. Jack. August 1953. 18p. diagrs., photo., tab. (NACA RM E53E28)

EFFECT OF ICE FORMATIONS ON SECTION DRAG OF SWEPT NACA 63A-009 AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Uwe H. von Glahn and Vernon H. Gray. March 1954. 59p. diagrs., photos. (NACA RM E53J30)

DUCTED BODIES (1.3.4)

AN INVESTIGATION OF THE CHARACTERISTICS OF THREE NACA 1-SERIES NOSE INLETS AT SUBCRITICAL AND SUPERCRITICAL MACH NUMBERS. Robert E. Pendley and Norman F. Smith. January 13, 1949. 38p. diagrs., photo. (NACA RM L8L06) (Declassified from Restricted, 12/14/53)

NOSE SHAPE (1. 3. 4. 1)

THE DEVELOPMENT OF JET-ENGINE NACELLES FOR A HIGH-SPEED BOMBER DESIGN. Robert E. Dannenberg. August 29, 1947. 37p. diagrs., photos., tab. (NACA RM A7D10) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. I - ALTERNATE-DUCT SYSTEM. Uwe von Glahn. May 28, 1948. 77p. diagrs., photos., 3 tabs. (NACA RM E8A27) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. II - SINGLE-OFFSET-DUCT SYSTEM. Uwe von Glahn. June 8, 1948. 11p. diagrs., photos. (NACA RM E8A28) (Declassified from Restricted, 12/14/53)

Nose Shape - Ducted Bodies (Cont.)

A METHOD FOR CALCULATING FLOW FIELDS OF COWLINGS WITH KNOWN SURFACE-PRESSURE DISTRIBUTIONS. Robert W. Boswinkle, Jr. November 22, 1948. 23p. diagrs. (NACA RM L8I17) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF WATER-INERTIA-SEPARATION INLETS FOR TURBOJET ENGINES. Uwe von Glahn and Robert E. Blatz. July 26, 1950. 54p. diagrs., photos., 3 tabs. (NACA RM E50E03) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A JET-ENGINE NACELLE ON THE AERODYNAMIC CHARACTERISTICS OF A 37.25° SWEPT-BACK WING AT HIGH SUBSONIC SPEEDS. Frederick W. Boltz and Donald A. Buell. October 24, 1950. 28p. diagrs., photos. (NACA RM A50H23) (Declassified from Restricted, 12/11/53)

PRELIMINARY INVESTIGATION OF A NEW TYPE OF SUPERSONIC INLET. Antonio Ferri and Louis M. Nucci. 1952. ii, 19p. diagrs., photos., tab. (NACA Rept. 1104. Formerly TN 2286)

AN EXPERIMENTAL INVESTIGATION AT LOW SPEEDS OF THE EFFECTS OF LIP SHAPE ON THE DRAG AND PRESSURE RECOVERY OF A NOSE INLET IN A BODY OF REVOLUTION. James R. Blackaby and Earl C. Watson. April 1954. 48p. diagrs., photos. (NACA TN 3170)

MINIMUM-DRAG DUCTED AND POINTED BODIES OF REVOLUTION BASED ON LINEARIZED SUPERSONIC THEORY. Hermon M. Parker. May 1954. 30p. diagrs. (NACA TN 3189)

TAIL SHAPE (1.3.4.2)

THEORETICAL PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR CONICAL BOATTAILS. John R. Jack. July 1953. 14p. diagrs. (NACA TN 2972)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SUPPORT INTERFERENCE ON THE PRESSURE DISTRIBUTION OF A BODY OF REVOLUTION AT A MACH NUMBER OF 3.12 AND REYNOLDS NUMBERS FROM 2×10^6 to 14×10^6. L. Eugene Baughman and John R. Jack. August 1953. 18p. diagrs., photo., tab. (NACA RM E53E28)

SIDE INLETS (1.3.4.3)

AN EXPERIMENTAL INVESTIGATION OF THE DESIGN VARIABLES FOR NACA SUBMERGED DUCT ENTRANCES. Emmet A. Mossman and Lauros M. Randall. January 8, 1948. 59p. diagrs., 3 tabs. (NACA RM A7I30) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. III - ANNULAR SUBMERGED INLETS. Uwe von Glahn. June 8, 1948. 21p. diagrs., photos., tab. (NACA RM E8A29) (Declassified from Restricted, 12/14/53)

A PRELIMINARY EXPERIMENTAL INVESTIGATION OF A SUBMERGED CASCADE INLET. R. Duane Christiani and Lauros M. Randall. March 25, 1949. 29p. diagrs., photos., 3 tabs. (NACA RM A9A24) (Declassified from Restricted, 12/14/53)

Internal Aerodynamics
(1.4)

PRESSURE-RISE AND LEAKAGE-LOSS CHARACTERISTICS OF A ROTATING COWLING. Jack F Runckel and Gerald Hieser. August 30, 1950. 47p. diagrs., photos. (NACA RM L50D07) (Declassified from Restricted, 12/11/53)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

A NOTE ON SECONDARY FLOW IN ROTATING RADIAL CHANNELS. James J. Kramer and John D. Stanitz. October 1953. 33p. diagrs. (NACA TN 3013)

STUDY OF THREE-DIMENSIONAL INTERNAL FLOW DISTRIBUTION BASED ON MEASUREMENTS IN A 48-INCH RADIAL-INLET CENTRIFUGAL IMPELLER. Joseph T. Hamrick, John Mizisin and Donald J. Michel. February 1954. 64p. diagrs., photos. (NACA TN 3101)

AIR INLETS
(1.4.1)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. I - NACELLE WITH OFFSET AIR INLET. Edmund E. Callaghan, Robert S. Ruggeri and Richard P. Krebs. July 9, 1948. 22p. diagrs. (NACA RM E8D13) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF EFFECTS OF INLET-AIR VELOCITY DISTORTION ON PERFORMANCE OF TURBOJET ENGINE. E. William Conrad and Adam E. Sobolewski. September 13, 1950. 41p. diagrs., photos. (NACA RM E50G11) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A JET-ENGINE NACELLE ON THE AERODYNAMIC CHARACTERISTICS OF A 37.25° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Frederick W. Boltz and Donald A. Buell. October 24, 1950. 28p. diagrs., photos. (NACA RM A50H23) (Declassified from Restricted, 12/11/53)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

THEORETICAL PERFORMANCE CHARACTERISTICS OF SHARP-LIP INLETS AT SUBSONIC SPEEDS. Evan A. Fradenburgh and DeMarquis D. Wyatt. September 1953. 21p. diagrs. (NACA TN 3004)

AN ANALYSIS OF TURBOJET-ENGINE-INLET MATCHING. DeMarquis D. Wyatt. September 1953. 19p. diagrs. (NACA TN 3012)

NOSE, CENTRAL
(1.4.1.1)

INVESTIGATION OF INTAKE DUCTS FOR A HIGH-SPEED SUBSONIC JET-PROPELLED AIRPLANE. Herbert N. Cohen. April 23, 1947. 24p. diagrs., photos., tab. (NACA RM L7C24a) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. I - ALTERNATE-DUCT SYSTEM. Uwe von Glahn. May 28, 1948. 77p. diagrs., photos., 3 tabs. (NACA RM E8A27) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. II - SINGLE-OFFSET-DUCT SYSTEM. Uwe von Glahn. June 8, 1948. 11p. diagrs., photos. (NACA RM E8A28) (Declassified from Restricted, 12/14/53)

A METHOD FOR CALCULATING FLOW FIELDS OF COWLINGS WITH KNOWN SURFACE-PRESSURE DISTRIBUTIONS. Robert W. Boswinkle, Jr. November 22, 1948. 23p. diagrs. (NACA RM L8I17) (Declassified from Restricted, 12/14/53)

SURFACE-PRESSURE DISTRIBUTIONS ON A SYSTEMATIC GROUP OF NACA 1-SERIES COWLINGS WITH AND WITHOUT SPINNERS. Robert W. Boswinkle, Jr. and Arvid L. Keith, Jr. November 30, 1948. 188p. diagrs., 3 tabs. (NACA RM L8I24) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE CHARACTERISTICS OF THREE NACA 1-SERIES NOSE INLETS AT SUBCRITICAL AND SUPERCRITICAL MACH NUMBERS. Robert E. Pendley and Norman F. Smith. January 13, 1949. 38p. diagrs., photo. (NACA RM L8L06) (Declassified from Restricted, 12/14/53)

Nose, Central - Air Inlets (Cont.)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF WATER-INERTIA-SEPARATION INLETS FOR TURBOJET ENGINES. Uwe von Glahn and Robert E. Blatz. July 26, 1950. 54p. diagrs., photos., 3 tabs. (NACA RM E50E03) (Declassified from Restricted, 12/11/53)

PRESSURE-RISE AND LEAKAGE-LOSS CHARACTERISTICS OF A ROTATING COWLING. Jack F. Runckel and Gerald Hieser. August 30, 1950. 47p. diagrs., photos. (NACA RM L50D07) (Declassified from Restricted, 12/11/53)

CONCERNING THE FLOW ABOUT RING-SHAPED COWLINGS. PART XII. TWO NEW CLASSES OF CIRCULAR COWLS. (Über die Strömung an ringförmigen Verkleidungen. XII Mitteilung: Zwei neue Klassen von Ringhauben). Dietrich Küchemann and Johanna Weber. October 1953. 72p. diagrs., 3 tabs. (NACA TM 1360. Trans. from Zentrale für wissenschaftliches Berichtswesen der Luftfahrtforschung, Berlin. UM 3111)

CONCERNING THE FLOW ON RING-SHAPED COWLINGS. PART XIII. THE INFLUENCE OF A PROJECTING HUB. (Ueber die Strömung an ringförmigen Verkleidungen. XIII. Mitteilung: Der Einfluss einer vorgezogenen Nabe). D. Küchemann. October 1953. 19p. diagrs. (NACA TM 1361. Trans. from Zentrale fur wissenschaftliches Berichtswesen der Luftfahrtforschung, Berlin. UM 3144)

Propeller-Spinner-Cowl Combinations (1.4.1.1.1)

PRESSURE-RISE AND LEAKAGE-LOSS CHARACTERISTICS OF A ROTATING COWLING. Jack F. Runckel and Gerald Hieser. August 30, 1950. 47p. diagrs., photos. (NACA RM L50D07) (Declassified from Restricted, 12/11/53)

Subsonic (1.4.1.1.2)

AN EXPERIMENTAL INVESTIGATION OF A JET-ENGINE NACELLE IN SEVERAL POSITIONS ON A 37.25° SWEPTBACK WING. Robert E. Dannenberg and James R. Blackaby. April 19, 1950. 51p. diagrs., photos., 4 tabs. (NACA RM A50A13) (Declassified from Restricted, 12/11/53)

AN EXPERIMENTAL INVESTIGATION AT LOW SPEEDS OF THE EFFECTS OF LIP SHAPE ON THE DRAG AND PRESSURE RECOVERY OF A NOSE INLET IN A BODY OF REVOLUTION. James R. Blackaby and Earl C. Watson. April 1954. 48p. diagrs., photos. (NACA TN 3170)

Supersonic (1.4.1.1.3)

AN INVESTIGATION OF THE LOW-SPEED CHARACTERISTICS OF TWO SHARP-EDGE SUPERSONIC INLETS DESIGNED FOR ESSENTIALLY EXTERNAL SUPERSONIC COMPRESSION. John S. Dennard. June 6, 1947. 32p. diagrs., photos. (NACA RM L7D03) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF SHOCK DIFFUSERS AT MACH NUMBER 1.85. I - PROJECTING SINGLE-SHOCK CONES. W. E. Moeckel, J. F. Connors and A. H. Schroeder. June 17, 1947. 47p. diagrs., photos. (NACA RM E6K27) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF SHOCK DIFFUSERS AT MACH NUMBER 1.85. II - PROJECTING DOUBLE-SHOCK CONES. W. E. Moeckel, J. F. Connors and A. H. Schroeder. June 17, 1947. 41p. diagrs., photos. (NACA RM E6L13) (Declassified from Restricted, 12/14/53)

THE USE OF PERFORATED INLETS FOR EFFICIENT SUPERSONIC DIFFUSION. John C. Evvard and John W. Blakey. June 25, 1947. 34p. diagrs., photo. (NACA RM E7C26. Now issued as RM E51B10) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF A NEW TYPE OF SUPERSONIC INLET. Antonio Ferri and Louis M. Nucci. 1952. ii, 19p. diagrs., photos., tab. (NACA Rept. 1104. Formerly TN 2286)

NOSE, ANNULAR (1.4.1.2)

INVESTIGATION OF INTAKE DUCTS FOR A HIGH-SPEED SUBSONIC JET-PROPELLED AIRPLANE. Herbert N. Cohen. April 23, 1947. 24p. diagrs., photos., tab. (NACA RM L7C24a) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. III - ANNULAR SUBMERGED INLETS. Uwe von Glahn. June 8, 1948. 21p. diagrs., photos., tab. (NACA RM E8A29) (Declassified from Restricted, 12/14/53)

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PRELIMINARY INVESTIGATION OF A VARIABLE MASS-FLOW SUPERSONIC NOSE INLET. Clyde Hayes. December 13, 1949. 15p. diagrs., photos. (NACA RM L9J11) (Declassified from Confidential, 1/8/54)

Nose, Annular - Air Inlets (Cont.)

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WING LEADING EDGE
(1.4.1.3)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPT WING WITH LEADING-EDGE INLETS. Robert E. Dannenberg. August 1951. 48p. diagrs., photos., tab. (NACA RM A51E29)

SIDE
(1.4.1.4)

AN INVESTIGATION OF SUBMERGED AIR INLETS ON A 1/4-SCALE MODEL OF A TYPICAL FIGHTER-TYPE AIRPLANE. Noel K. Delany. June 2, 1948. 47p. diagrs., photos. (NACA RM A8A20) (Declassified from Confidential, 1/8/54)

Scoops
(1.4.1.4.1)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF A FLUSH ALTERNATE-INLET INDUCTION-SYSTEM AIR SCOOP. James P. Lewis. July 1953. 42p. diagrs., photos. (NACA RM E53E07)

Submerged
(1.4.1.4.2)

AN EXPERIMENTAL INVESTIGATION OF NACA SUBMERGED AIR INLETS ON A 1/5-SCALE MODEL OF A FIGHTER AIRPLANE. Donald E. Gault. December 5, 1947. 32p. diagrs., photos., 4 tabs. (NACA RM A7I06) (Declassified from Restricted, 12/14/53)

AN EXPERIMENTAL INVESTIGATION OF THE DESIGN VARIABLES FOR NACA SUBMERGED DUCT ENTRANCES. Emmet A. Mossman and Lauros M. Randall. January 8, 1948. 59p. diagrs., 3 tabs. (NACA RM A7I30) (Declassified from Restricted, 12/14/53)

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DUCTS
(1.4.2)

INVESTIGATION OF INTAKE DUCTS FOR A HIGH-SPEED SUBSONIC JET-PROPELLED AIRPLANE. Herbert N. Cohen. April 23, 1947. 24p. diagrs., photos., tab. (NACA RM L7C24a) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF SUBMERGED AIR INLETS ON A 1/4-SCALE MODEL OF A TYPICAL FIGHTER-TYPE AIRPLANE. Noel K. Delany. June 2, 1948. 47p. diagrs., photos. (NACA RM A8A20) (Declassified from Confidential, 1/8/54)

DESIGN OF TWO-DIMENSIONAL CHANNELS WITH PRESCRIBED VELOCITY DISTRIBUTIONS ALONG THE CHANNEL WALLS. John D. Stanitz. 1953. ii, 40p. diagrs., 8 tabs. (NACA Rept. 1115. Formerly TN 2593; TN 2595)

AIR ADMIXTURE TO EXHAUST JETS. (Luftzumischung zu Abgasstrahlen). E. Sänger. July 1953. 35p. diagrs. (NACA TM 1357. Trans. from Ingenieur-Archiv, v. 18, no. 5, 1950, p. 310-323).

MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence. August 1953. 45p. diagrs. (NACA RM E53F19)

Ducts (Cont.)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

MEASUREMENT OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR FLOW OF AIR IN NON-CIRCULAR DUCTS AT HIGH SURFACE TEMPERATURES. Warren H. Lowdermilk, Walter F. Weiland, Jr. and John N. B. Livingood. January 1954. 26p. diagrs. (NACA RM E53J07)

DIFFUSERS
(1.4.2.1)

AN EXPERIMENTAL INVESTIGATION OF NACA SUBMERGED AIR INLETS ON A 1/5-SCALE MODEL OF A FIGHTER AIRPLANE. Donald E. Gault. December 5, 1947. 32p. diagrs., photos., 4 tabs. (NACA RM A7I06) (Declassified from Restricted, 12/14/53)

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A PRELIMINARY EXPERIMENTAL INVESTIGATION OF A SUBMERGED CASCADE INLET. R. Duane Christiani and Lauros M. Randall. March 25, 1949. 29p. diagrs., photos., 3 tabs. (NACA RM A9A24) (Declassified from Restricted, 12-14-53)

EXPERIMENTAL DETERMINATION OF THE SUBSONIC PERFORMANCE OF A RAM-JET UNIT CONTAINING THIN-PLATE BURNERS. John R. Henry. June 29, 1949. 54p. diagrs., photos. (NACA RM L9B17) (Declassified from Confidential, 1/8/54)

PERFORMANCE CHARACTERISTICS OF TWO 6° AND TWO 12° DIFFUSERS AT HIGH FLOW RATES. William J. Nelson and Eileen G. Popp. October 19, 1949. 26p. diagrs. (NACA RM L9H09) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF A VARIABLE MASS-FLOW SUPERSONIC NOSE INLET. Clyde Hayes. December 13, 1949. 15p. diagrs., photos. (NACA RM L9J11) (Declassified from Confidential, 1/8/54)

EFFECTS OF INLET WALL CONTOUR ON THE PRESSURE RECOVERY OF A 10° 10-INCH-INLET-DIAMETER CONICAL DIFFUSER. Martin R. Copp. September 1951. 29p. diagrs., photos. (NACA RM L51E11a)

AN ANALYSIS OF TURBOJET-ENGINE-INLET MATCHING. DeMarquis D. Wyatt. September 1953. 19p. diagrs. (NACA TN 3012)

AN ANALYTICAL INVESTIGATION OF THE EFFECT OF THE RATE OF INCREASE OF TURBULENT KINETIC ENERGY IN THE STREAM DIRECTION ON THE DEVELOPMENT OF TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Bernard Rashis. November 1953. 30p. diagrs., 2 tabs. (NACA TN 3049)

Subsonic
(1.4.2.1.1)

THE EFFECT OF SURFACE ROUGHNESS ON THE PERFORMANCE OF A 23° CONICAL DIFFUSER AT SUBSONIC MACH NUMBERS. Jerome Persh. January 1952. 42p. diagrs., photos. (NACA RM L51K09)

SPECTRUM OF TURBULENCE IN A CONTRACTING STREAM. H. S. Ribner and M. Tucker. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1113. Formerly TN 2606)

THEORETICAL PERFORMANCE CHARACTERISTICS OF SHARP-LIP INLETS AT SUBSONIC SPEEDS. Evan A. Fradenburgh and DeMarquis D. Wyatt. September 1953. 21p. diagrs. (NACA TN 3004)

EFFECT OF SURFACE ROUGHNESS OVER THE DOWNSTREAM REGION OF A 23° CONICAL DIFFUSER. Jerome Persh and Bruce M. Bailey. January 1954. 57p. diagrs., photo. (NACA TN 3066)

EFFECT OF VARIOUS ARRANGEMENTS OF TRIANGULAR LEDGES ON THE PERFORMANCE OF A 23° CONICAL DIFFUSER AT SUBSONIC MACH NUMBERS. Jerome Persh and Bruce M. Bailey. January 1954. 36p. diagrs. (NACA TN 3123)

A METHOD FOR ESTIMATING THE EFFECT OF TURBULENT VELOCITY FLUCTUATIONS IN THE BOUNDARY LAYER ON DIFFUSER TOTAL-PRESSURE-LOSS MEASUREMENTS. Jerome Persh and Bruce M. Bailey. January 1954. 16p. diagrs. (NACA TN 3124)

AN EXPERIMENTAL INVESTIGATION AT LOW SPEEDS OF THE EFFECTS OF LIP SHAPE ON THE DRAG AND PRESSURE RECOVERY OF A NOSE INLET IN A BODY OF REVOLUTION. James R. Blackaby and Earl C. Watson. April 1954. 48p. diagrs., photos. (NACA TN 3170)

Supersonic
(1.4.2.1.2)

INVESTIGATION OF SHOCK DIFFUSERS AT MACH NUMBER 1.85. I - PROJECTING SINGLE-SHOCK CONES. W. E. Moeckel, J. F. Connors and A. H. Schroeder. June 17, 1947. 47p. diagrs., photos. (NACA RM E6K27) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF SHOCK DIFFUSERS AT MACH NUMBER 1.85. II - PROJECTING DOUBLE-SHOCK CONES. W. E. Moeckel, J. F. Connors and A. H. Schroeder. June 17, 1947. 41p. diagrs., photos. (NACA RM E6L13) (Declassified from Restricted, 12/14/53)

THE USE OF PERFORATED INLETS FOR EFFICIENT SUPERSONIC DIFFUSION. John C. Evvard and John W. Blakey. June 25, 1947. 34p. diagrs., photo. (NACA RM E7C26. Now issued as RM E51B10) (Declassified from Restricted, 12/14/53)

Supersonic - Ducts (Cont.)

PRELIMINARY INVESTIGATION OF A NEW TYPE OF SUPERSONIC INLET. Antonio Ferri and Louis M. Nucci. 1952. ii, 19p. diagrs., photos., tab. (NACA Rept. 1104. Formerly TN 2286)

SPECTRUM OF TURBULENCE IN A CONTRACTING STREAM. H. S. Ribner and M. Tucker. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1113. Formerly TN 2606)

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PRESENT STATUS OF INFORMATION RELATIVE TO THE PREDICTION OF SHOCK-INDUCED BOUNDARY-LAYER SEPARATION. Roy H. Lange. February 1954. 16p. diagrs. (NACA TN 3065)

NOZZLES
(1.4.2.2)

PERFORMANCE OF SEVERAL AIR EJECTORS WITH CONICAL MIXING SECTIONS AND SMALL SECONDARY FLOW RATES. S. C. Huddleston, H. D. Wilsted and C. W. Ellis. July 19, 1948. 74p. diagrs. (NACA RM E8D23) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF SEVERAL CLAMSHELL VARIABLE-AREA EXHAUST NOZZLES FOR TURBOJET ENGINES. Bruce T. Lundin. May 26, 1949. 52p. diagrs., photos. (NACA RM E9B02) (Declassified from Restricted, 12/14/53)

EFFECT OF TEMPERATURE ON PERFORMANCE OF SEVERAL EJECTOR CONFIGURATIONS. H. D. Wilsted, S. C. Huddleston and C. W. Ellis. June 13, 1949. 27p. diagrs. (NACA RM E9E16) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF CONSTANT-GEOMETRY, VARIABLE MACH NUMBER, SUPERSONIC TUNNEL WITH POROUS WALLS. William J. Nelson and Paul L. Klevatt. May 3, 1950. 27p. diagrs., photos. (NACA RM L50B01) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF THE SUPERSONIC FLOW FIELD DOWNSTREAM OF WIRE-MESH NOZZLES IN A CONSTANT-AREA DUCT. Lawrence I. Gould. August 1951. 22p. diagrs., photos. (NACA RM E51F25)

INVESTIGATION OF AXIALLY SYMMETRIC AND TWO-DIMENSIONAL MULTINOZZLES FOR PRODUCING SUPERSONIC STREAMS. Eli Reshotko and Rudolph C. Haefeli. October 1952. 35p. diagrs., photos., tab. (NACA RM E52H28)

SPECTRUM OF TURBULENCE IN A CONTRACTING STREAM. H. S. Ribner and M. Tucker. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1113. Formerly TN 2606)

APPLICATION OF A CHARACTERISTIC BLADE-TO-BLADE SOLUTION TO FLOW IN A SUPERSONIC ROTOR WITH VARYING STREAM-FILAMENT THICKNESS. Eleanor L. Costilow. August 1953. 36p. diagrs., 5 tabs. (NACA TN 2992)

AN ANALYTICAL STUDY OF THE EFFECT OF AIRPLANE WAKE ON THE LATERAL DISPERSION OF AERIAL SPRAYS. Wilmer H. Reed, III. October 1953. 46p. diagrs., 3 tabs. (NACA TN 3032)

THE AMES 10- BY 14-INCH SUPERSONIC WIND TUNNEL. A. J. Eggers, Jr. and George J. Nothwang. January 1954. 43p. diagrs., photos., tab. (NACA TN 3095)

PIPES
(1.4.2.3)

ANALYSIS OF TURBULENT HEAT TRANSFER AND FLOW IN THE ENTRANCE REGIONS OF SMOOTH PASSAGES. Robert G. Deissler. October 1953. 88p. diagrs. (NACA TN 3016)

ONE-DIMENSIONAL, COMPRESSIBLE, VISCOUS FLOW RELATIONS APPLICABLE TO FLOW IN A DUCTED HELICOPTER BLADE. John R. Henry. December 1953. 16p. diagrs. (NACA TN 3089)

MEASUREMENT OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR FLOW OF AIR IN NONCIRCULAR DUCTS AT HIGH SURFACE TEMPERATURES. Warren H. Lowdermilk, Walter F. Weiland, Jr. and John N. B. Livingood. January 1954. 26p. diagrs. (NACA RM E53J07)

BENDS
(1.4.2.4)

A PRELIMINARY EXPERIMENTAL INVESTIGATION OF A SUBMERGED CASCADE INLET. R. Duane Christiani and Lauros M. Randall. March 25, 1949. 29p. diagrs., photos., 3 tabs. (NACA RM A9A24) (Declassified from Restricted, 12/14/53)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

EXITS
(1.4.3)

TOOTH-TYPE NOISE-SUPPRESSION DEVICES ON A FULL-SCALE AXIAL-FLOW TURBOJET ENGINE. Edmund E. Callaghan, Walton Howes and Warren North. March 1954. 16p. diagrs., photos. (NACA RM E54B01)

AN EXPERIMENTAL STUDY OF POROSITY CHARACTERISTICS OF PERFORATED MATERIALS IN NORMAL AND PARALLEL FLOW. George M. Stokes, Don D. Davis, Jr. and Thomas B. Sellers. April 1954. 24p. diagrs., photos. (NACA TN 3085. Formerly RM L53H07)

JET PUMPS AND THRUST AUGMENTORS

(1.4.4)

PERFORMANCE OF SEVERAL AIR EJECTORS WITH CONICAL MIXING SECTIONS AND SMALL SECONDARY FLOW RATES. S. C. Huddleston, H. D. Wilsted and C. W. Ellis. July 19, 1948. 74p. diagrs. (NACA RM E8D23) (Declassified from Restricted, 12/14/53)

EFFECT OF TEMPERATURE ON PERFORMANCE OF SEVERAL EJECTOR CONFIGURATIONS. H. D. Wilsted, S. C. Huddleston and C. W. Ellis. June 13, 1949. 27p. diagrs. (NACA RM E9E16) (Declassified from Restricted, 12/14/53)

AIR ADMIXTURE TO EXHAUST JETS. (Luftzumischung zu Abgasstrahlen). E. Sänger. July 1953. 35p. diagrs. (NACA TM 1357. Trans. from Ingenieur-Archiv, v. 18, no. 5, 1950, p. 310-323).

CASCADES

(1.4.5)

THEORY
(1.4.5.1)

A PRELIMINARY EXPERIMENTAL INVESTIGATION OF A SUBMERGED CASCADE INLET. R. Duane Christiani and Lauros M. Randall. March 25, 1949. 29p. diagrs., photos., 3 tabs. (NACA RM A9A24) (Declassified from Restricted, 12/14/53)

SECONDARY FLOWS IN ANNULAR CASCADES AND EFFECTS ON FLOW IN INLET GUIDE VANES. Seymour Lieblein and Richard H. Ackley. August 1951. 63p. diagrs., tab. (NACA RM E51G27)

EXPERIMENTAL INVESTIGATION OF FLOW THROUGH THREE HIGHLY LOADED INLET GUIDE VANES HAVING DIFFERENT SPANWISE CIRCULATION GRADIENTS. Loren A. Beatty, Melvyn Savage and James C. Emery. July 1952. 24p. diagrs., tab. (NACA RM L52D25a)

APPLICATION OF A CHANNEL DESIGN METHOD TO HIGH-SOLIDITY CASCADES AND TESTS OF AN IMPULSE CASCADE WITH 90° OF TURNING. John D. Stanitz and Leonard J. Sheldrake. 1953. ii, 20p. diagrs., photos., 2 tabs. (NACA Rept. 1116. Formerly TN 2652)

A CASCADE - GENERAL-MOMENTUM THEORY OF OPERATION OF A SUPERSONIC PROPELLER ANNULUS. Bernard B. Klawans and Arthur W. Vogeley. January 1953. 25p. diagrs., 2 tabs. (NACA RM L52J06)

APPLICATION OF A CHARACTERISTIC BLADE-TO-BLADE SOLUTION TO FLOW IN A SUPERSONIC ROTOR WITH VARYING STREAM-FILAMENT THICKNESS. Eleanor L. Costilow. August 1953. 36p. diagrs., 5 tabs. (NACA TN 2992)

EXPERIMENT
(1.4.5.2)

ANALYTICAL DETERMINATION OF LOCAL SURFACE HEAT-TRANSFER COEFFICIENTS FOR COOLED TURBINE BLADES FROM MEASURED METAL TEMPERATURES. W. Byron Brown and Jack B. Esgar. August 11, 1950. 66p. diagrs. (NACA RM E50F09) (Declassified from Restricted, 12/11/53)

SECONDARY FLOWS IN ANNULAR CASCADES AND EFFECTS ON FLOW IN INLET GUIDE VANES. Seymour Lieblein and Richard H. Ackley. August 1951. 63p. diagrs., tab. (NACA RM E51G27)

EXPERIMENTAL INVESTIGATION OF THE HEAT-TRANSFER CHARACTERISTICS OF AN AIR-COOLED SINTERED POROUS TURBINE BLADE. Louis J. Schafer, Jr., Edward R. Bartoo and Hadley T. Richards. February 1952. 33p. diagrs., photos. (NACA RM E51K08)

EXPERIMENTAL INVESTIGATION OF FLOW IN AN ANNULAR CASCADE OF TURBINE NOZZLE BLADES OF CONSTANT DISCHARGE ANGLE. Milton G. Kofskey, Harold E. Rohlik and Daniel E. Monroe. March 1952. 28p. diagrs., photos. (NACA RM E52A09)

PRESSURE DROP IN COOLANT PASSAGES OF TWO AIR-COOLED TURBINE-BLADE CONFIGURATIONS. W. Byron Brown and Henry O. Slone. June 1952. 57p. diagrs., photos., tab. (NACA RM E52D01)

EXPERIMENTAL INVESTIGATION OF FLOW THROUGH THREE HIGHLY LOADED INLET GUIDE VANES HAVING DIFFERENT SPANWISE CIRCULATION GRADIENTS. Loren A. Beatty, Melvyn Savage and James C. Emery. July 1952. 24p. diagrs., tab. (NACA RM L52D25a)

APPLICATION OF A CHANNEL DESIGN METHOD TO HIGH-SOLIDITY CASCADES AND TESTS OF AN IMPULSE CASCADE WITH 90° OF TURNING. John D. Stanitz and Leonard J. Sheldrake. 1953. ii, 20p. diagrs., photos., 2 tabs. (NACA Rept. 1116. Formerly TN 2652)

COMPARISON OF SECONDARY FLOWS AND BOUNDARY-LAYER ACCUMULATIONS IN SEVERAL TURBINE NOZZLES. Milton G. Kofskey, Hubert W. Allen and Howard Z. Herzig. August 1953. 58p. diagrs., photos., 3 tabs. (NACA TN 2989)

FANS

(1.4.6)

PRESSURE-RISE AND LEAKAGE-LOSS CHARACTERISTICS OF A ROTATING COWLING. Jack F. Runckel and Gerald Hieser. August 30, 1950. 47p. diagrs., photos. (NACA RM L50D07) (Declassified from Restricted, 12/11/53)

PERFORMANCE OF SINGLE-STAGE COMPRESSOR DESIGNED ON BASIS OF CONSTANT TOTAL ENTHALPY WITH SYMMETRICAL VELOCITY DIAGRAM AT ALL RADII AND VELOCITY RATIO OF 0.7 AT ROTOR HUB. Jack R. Burtt and Robert J. Jackson. September 1951. 14p. diagrs. (NACA RM E51F06)

BOUNDARY LAYER
(1.4.7)

THE EFFECT OF SURFACE ROUGHNESS ON THE PERFORMANCE OF A 23° CONICAL DIFFUSER AT SUBSONIC MACH NUMBERS. Jerome Persh. January 1952. 42p. diagrs., photos. (NACA RM L51K09)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF LOW-SPEED TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Virgil A. Sandborn. October 1953. 37p. diagrs., photos. (NACA TN 3031)

AN ANALYTICAL INVESTIGATION OF THE EFFECT OF THE RATE OF INCREASE OF TURBULENT KINETIC ENERGY IN THE STREAM DIRECTION ON THE DEVELOPMENT OF TURBULENT BOUNDARY LAYERS IN ADVERSE PRESSURE GRADIENTS. Bernard Rashis. November 1953. 30p. diagrs., 2 tabs. (NACA TN 3049)

EFFECT OF SURFACE ROUGHNESS OVER THE DOWNSTREAM REGION OF A 23° CONICAL DIFFUSER. Jerome Persh and Bruce M. Bailey. January 1954. 57p. diagrs., photo. (NACA TN 3066)

EFFECT OF VARIOUS ARRANGEMENTS OF TRIANGULAR LEDGES ON THE PERFORMANCE OF A 23° CONICAL DIFFUSER AT SUBSONIC MACH NUMBERS. Jerome Persh and Bruce M. Bailey. January 1954. 36p. diagrs. (NACA TN 3123)

A METHOD FOR ESTIMATING THE EFFECT OF TURBULENT VELOCITY FLUCTUATIONS IN THE BOUNDARY LAYER ON DIFFUSER TOTAL-PRESSURE-LOSS MEASUREMENTS. Jerome Persh and Bruce M. Bailey. January 1954. 16p. diagrs. (NACA TN 3124)

NOTE ON THE AERODYNAMIC HEATING OF AN OSCILLATING SURFACE. Simon Ostrach. April 1954. 12p. (NACA TN 3146)

CHARACTERISTICS
(1.4.7.1)

EFFECTS OF INLET WALL CONTOUR ON THE PRESSURE RECOVERY OF A 10° 10-INCH-INLET-DIAMETER CONICAL DIFFUSER. Martin R. Copp. September 1951. 29p. diagrs., photos. (NACA RM L51E11a)

EXPERIMENTAL INVESTIGATION OF FLOW IN AN ANNULAR CASCADE OF TURBINE NOZZLE BLADES OF CONSTANT DISCHARGE ANGLE. Milton G. Kofskey, Harold E. Rohlik and Daniel E. Monroe. March 1952. 28p. diagrs., photos. (NACA RM E52A09)

COMPARISON OF SECONDARY FLOWS AND BOUNDARY-LAYER ACCUMULATIONS IN SEVERAL TURBINE NOZZLES. Milton G. Kofskey, Hubert W. Allen and Howard Z. Herzig. August 1953. 58p. diagrs., photos., 3 tabs. (NACA TN 2989)

AN EXPERIMENTAL INVESTIGATION OF SECONDARY FLOW IN AN ACCELERATING, RECTANGULAR ELBOW WITH 90° OF TURNING. John D. Stanitz, Walter M. Osborn and John Mizisin. October 1953. 60p. diagrs., photos., 2 tabs. (NACA TN 3015)

STATISTICAL STUDY OF TRANSITION-POINT FLUCTUATIONS IN SUPERSONIC FLOW. J. C. Evvard, M. Tucker and W. C. Burgess, Jr. Appendix B. MATHEMATICAL PROCEDURES. Hugo Heermann. March 1954. 32p. diagrs., photos., tab. (NACA TN 3100)

AN EXPERIMENTAL INVESTIGATION AT LOW SPEEDS OF THE EFFECTS OF LIP SHAPE ON THE DRAG AND PRESSURE RECOVERY OF A NOSE INLET IN A BODY OF REVOLUTION. James R. Blackaby and Earl C. Watson. April 1954. 48p. diagrs., photos. (NACA TN 3170)

CONTROL
(1.4.7.2)

THE RESISTANCE TO AIR FLOW OF POROUS MATERIALS SUITABLE FOR BOUNDARY-LAYER-CONTROL APPLICATIONS USING AREA SUCTION. Robert E. Dannenberg, James A. Weiberg and Bruno J. Gambucci. January 1954. 21p. diagrs., photos., tab. (NACA TN 3094)

Propellers
(1.5)

PROPELLER-NOISE CHARTS FOR TRANSPORT AIRPLANES. Harvey H. Hubbard. June 1953. 47p. diagrs., photos., tab. (NACA TN 2968)

PROPELLER-PERFORMANCE CHARTS FOR TRANSPORT AIRPLANES. Jean Gilman, Jr. July 1953. 70p. diagrs. (NACA TN 2966)

THEORY
(1.5.1)

A CASCADE - GENERAL-MOMENTUM THEORY OF OPERATION OF A SUPERSONIC PROPELLER ANNULUS. Bernard B. Klawans and Arthur W. Vogeley. January 1953. 25p. diagrs., 2 tabs. (NACA RM L52J06)

COMPRESSIBLE-FLOW SOLUTIONS FOR THE ACTUATOR DISK. James B. Delano and John L. Crigler. March 1953. 70p. diagrs. (NACA RM L53A07)

LINEARIZED POTENTIAL THEORY OF PROPELLER INDUCTION IN A COMPRESSIBLE FLOW. Robert E. Davidson. September 1953. 47p. diagrs., 5 tabs. (NACA TN 2983)

A THEORETICAL STUDY OF THE EFFECT OF FORWARD SPEED ON THE FREE-SPACE SOUND-PRESSURE FIELD AROUND PROPELLERS. I. E. Garrick and C. E. Watkins. October 1953. 39p. diagrs., tab. (NACA TN 3018)

DESIGN VARIABLES
(1.5.2)

WIND-TUNNEL TESTS OF A SWEPT-BLADE PROPELLER AND RELATED STRAIGHT BLADES HAVING THICKNESS RATIOS OF 5 AND 6 PERCENT. W. H. Gray. November 10, 1948. 63p. diagrs., photos., tab. (NACA RM L8H19) (Declassified from Restricted, 12/10/53)

THE EFFECTS OF VARIOUS PARAMETERS INCLUDING MACH NUMBER ON PROPELLER-BLADE FLUTTER WITH EMPHASIS ON STALL FLUTTER. John E. Baker. January 31, 1951. 40p. diagrs., 3 tabs. (NACA RM L50L12b) (Declassified from Restricted, 12/11/53)

BLADE SECTIONS
(1.5.2.1)

STATIC TESTS OF FOUR TWO-BLADE NACA PROPELLERS DIFFERING IN CAMBER AND SOLIDITY. Robert J. Platt, Jr. December 2, 1948. 23p. diagrs., photo. (NACA RM L8H25a) (Declassified from Restricted, 12/14/53)

THE EFFECT OF BLADE-SECTION THICKNESS RATIOS ON THE AERODYNAMIC CHARACTERISTICS OF RELATED FULL-SCALE PROPELLERS AT MACH NUMBERS UP TO 0.65. Julian D. Maynard and Seymour Steinberg. 1953. ii, 55p. diagrs., photos., tab. (NACA Rept. 1126. Formerly RM L9D29)

SOLIDITY
(1.5.2.2)

THE EFFECT OF HIGH SOLIDITY ON PROPELLER CHARACTERISTICS AT HIGH FORWARD SPEEDS FROM WIND-TUNNEL TESTS OF THE NACA 4-(3)(06.3)-06 AND NACA 4-(3)(06.4)-09 TWO-BLADE PROPELLERS. James B. Delano. February 27, 1947. 50p. diagrs., photos. (NACA RM L6L19) (Declassified from Restricted, 12/14/53)

STATIC TESTS OF FOUR TWO-BLADE NACA PROPELLERS DIFFERING IN CAMBER AND SOLIDITY. Robert J. Platt, Jr. December 2, 1948. 23p. diagrs., photo. (NACA RM L8H25a) (Declassified from Restricted, 12/14/53)

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PITCH DISTRIBUTION
(1.5.2.3)

THE EFFECT OF BLADE-SECTION THICKNESS RATIOS ON THE AERODYNAMIC CHARACTERISTICS OF RELATED FULL-SCALE PROPELLERS AT MACH NUMBERS UP TO 0.65. Julian D. Maynard and Seymour Steinberg. 1953. ii, 55p. diagrs., photos., tab. (NACA Rept. 1126. Formerly RM L9D29)

MACH NUMBER EFFECTS
(1.5.2.5)

THE EFFECT OF HIGH SOLIDITY ON PROPELLER CHARACTERISTICS AT HIGH FORWARD SPEEDS FROM WIND-TUNNEL TESTS OF THE NACA 4-(3)(06.3)-06 AND NACA 4-(3)(06.4)-09 TWO-BLADE PROPELLERS. James B. Delano. February 27, 1947. 50p. diagrs., photos. (NACA RM L6L19) (Declassified from Restricted, 12/14/53)

FURTHER INVESTIGATION OF NACA 4-(5)(08)-03 TWO-BLADE PROPELLER AT HIGH FORWARD SPEEDS. Melvin M. Carmel and Harold L. Robinson. May 26, 1947. 46p. diagrs. (NACA RM L7E12) (Declassified from Restricted, 12/14/53)

STATIC TESTS OF FOUR TWO-BLADE NACA PROPELLERS DIFFERING IN CAMBER AND SOLIDITY. Robert J. Platt, Jr. December 2, 1948. 23p. diagrs., photo. (NACA RM L8H25a) (Declassified from Restricted, 12/14/53)

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DUAL ROTATION
(1.5.2.7)

LINEARIZED POTENTIAL THEORY OF PROPELLER INDUCTION IN A COMPRESSIBLE FLOW. Robert E. Davidson. September 1953. 47p. diagrs., 5 tabs. (NACA TN 2983)

INTERFERENCE OF BODIES
(1.5.2.8)

A METHOD FOR CALCULATING FLOW FIELDS OF COWLINGS WITH KNOWN SURFACE-PRESSURE DISTRIBUTIONS. Robert W. Boswinkle, Jr. November 22, 1948. 23p. diagrs. (NACA RM L8I17) (Declassified from Restricted, 12/14/53)

SURFACE-PRESSURE DISTRIBUTIONS ON A SYSTEMATIC GROUP OF NACA 1-SERIES COWLINGS WITH AND WITHOUT SPINNERS. Robert W. Boswinkle, Jr. and Arvid L. Keith, Jr. November 30, 1948. 188p. diagrs., 3 tabs. (NACA RM L8I24) (Declassified from Restricted, 12/14/53)

SURVEYS OF THE FLOW FIELDS AT THE PROPELLER PLANES OF SIX 40° SWEPTBACK WING-FUSELAGE-NACELLE COMBINATIONS. Vernon L. Rogallo and John L. McCloud III. June 1953. 57p. diagrs., photos. (NACA TN 2957)

PITCH AND YAW
(1.5.2.9)

A WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF THRUST-AXIS INCLINATION ON PROPELLER FIRST-ORDER VIBRATION. W. H. Gray, J. M. Hallissy, Jr. and A. R. Heath, Jr. June 9, 1950. 64p. diagrs., photo., tab. (NACA RM L50D13) (Declassified from Restricted, 12/11/53)

DESIGNATED TYPES
(1.5.3)

WIND-TUNNEL TESTS OF A SWEPT-BLADE PROPELLER AND RELATED STRAIGHT BLADES HAVING THICKNESS RATIOS OF 5 AND 6 PERCENT. W. H. Gray. November 10, 1948. 63p. diagrs., photos., tab. (NACA RM L8H19) (Declassified from Restricted, 12/10/53)

SLIPSTREAM
(1.5.4)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF PROPELLER OPERATION AT HIGH THRUST ON THE LONGITUDINAL STABILITY AND TRIM OF A TWIN-ENGINE AIRPLANE CONFIGURATION. William C. Sleeman, Jr. and Edward L. Linsley. July 1952. 66p. diagrs., photos. (NACA RM L52D04)

COMPRESSIBLE-FLOW SOLUTIONS FOR THE ACTUATOR DISK. James B. Delano and John L. Crigler. March 1953. 70p. diagrs. (NACA RM L53A07)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

OPERATING CONDITIONS (1.5.6)

THE EFFECTS OF VARIOUS PARAMETERS INCLUDING MACH NUMBER ON PROPELLER-BLADE FLUTTER WITH EMPHASIS ON STALL FLUTTER. John E. Baker. January 31, 1951. 40p. diagrs., 3 tabs. (NACA RM L50L12b) (Declassified from Restricted, 12/11/53)

THE EFFECT OF BLADE-SECTION THICKNESS RATIOS ON THE AERODYNAMIC CHARACTERISTICS OF RELATED FULL-SCALE PROPELLERS AT MACH NUMBERS UP TO 0.65. Julian D. Maynard and Seymour Steinberg. 1953. ii, 55p. diagrs., photos., tab. (NACA Rept. 1126. Formerly RM L9D29)

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AN INVESTIGATION UTILIZING AN ELECTRICAL ANALOGUE OF CYCLIC DE-ICING OF HOLLOW STEEL PROPELLERS WITH INTERNAL ELECTRIC HEATERS. Carr B. Neel, Jr. October 1953. 31p. diagrs., photo., 3 tabs. (NACA TN 3025)

PROPELLER-SPINNER-COWL COMBINATIONS (1.5.7)

PRELIMINARY RESULTS OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL SPINNER. U. von Glahn. August 1953. 35p. diagrs., photo., 2 tabs. (NACA RM E53F02)

Rotating Wings
(1.6)

THEORY
(1.6.1)

CHARTS FOR ESTIMATION OF THE PROFILE DRAG-LIFT RATIO OF A HELICOPTER ROTOR HAVING RECTANGULAR BLADES WITH -8° TWIST. F. B. Gustafson. October 1953. 18p. diagrs. (NACA RM L53G20a)

EFFECT OF A RAPID BLADE-PITCH INCREASE ON THE THRUST AND INDUCED-VELOCITY RESPONSE OF A FULL-SCALE HELICOPTER ROTOR. Paul J. Carpenter and Bernard Fridovich. November 1953. 26p. diagrs., photos. (NACA TN 3044)

CHARTS FOR ESTIMATING TAIL-ROTOR CONTRIBUTION TO HELICOPTER DIRECTIONAL STABILITY AND CONTROL IN LOW-SPEED FLIGHT. Kenneth B. Amer and Alfred Gessow. May 1954. 54p. diagrs., photo., 2 tabs. (NACA TN 3156)

EXPERIMENTAL STUDIES
(1.6.2)

INITIAL RESULTS OF INSTRUMENT-FLYING TRIALS CONDUCTED IN A SINGLE-ROTOR HELICOPTER. Almer D. Crim, John P. Reeder and James B. Whitten. 1953. ii, 7p., diagrs., photos. (NACA Rept. 1137. Formerly TN 2721)

FLIGHT MEASUREMENTS AND ANALYSIS OF HELICOPTER NORMAL LOAD FACTORS IN MANEUVERS. F. B. Gustafson and Almer D. Crim. August 1953. 29p. diagrs., photos., 2 tabs. (NACA TN 2990)

A PRELIMINARY INVESTIGATION OF THE EFFECTS OF GUSTY AIR ON HELICOPTER-BLADE BENDING MOMENTS. Joseph W. Jewel, Jr. and Paul J. Carpenter. March 1954. 28p. diagrs., photos. (NACA TN 3074)

POWER-DRIVEN
(1.6.2.1)

EFFECT OF A RAPID BLADE-PITCH INCREASE ON THE THRUST AND INDUCED-VELOCITY RESPONSE OF A FULL-SCALE HELICOPTER ROTOR. Paul J. Carpenter and Bernard Fridovich. November 1953. 26p. diagrs., photos. (NACA TN 3044)

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Aircraft
(1.7)

LANGLEY FULL-SCALE-TUNNEL INVESTIGATION OF MAXIMUM LIFT AND STABILITY CHARACTERISTICS OF AN AIRPLANE HAVING APPROXIMATELY TRIANGULAR PLAN FORM (DM-1 GLIDER). J. Calvin Lovell and Herbert A. Wilson, Jr. August 5, 1947. 44p. diagrs., photos., tab. (NACA RM L7F16) (Declassified from Restricted, 12/14/53)

AIRPLANES
(1.7.1)

THE SIMILARITY LAW FOR HYPERSONIC FLOW AND REQUIREMENTS FOR DYNAMIC SIMILARITY OF RELATED BODIES IN FREE FLIGHT. Frank M. Hamaker, Stanford E. Neice and Thomas J. Wong. 1953. ii, 11p. diagrs. (NACA Rept. 1147. Formerly TN 2443; TN 2631)

COMPONENTS IN COMBINATION
(1.7.1.1)

FREE-FALL MEASUREMENTS AT TRANSONIC VELOCITIES OF THE DRAG OF A WING-BODY CONFIGURATION CONSISTING OF A 45° SWEPTBACK WING MOUNTED FORWARD OF THE MAXIMUM DIAMETER ON A BODY OF FINENESS RATIO 12. Charles W. Mathews and Jim Rogers Thompson. April 2, 1947. 18p. diagrs., photo. (NACA RM L6L26) (Declassified from Confidential, 11/10/53)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A CANARD MODEL HAVING A 60° TRIANGULAR WING AND HORIZONTAL TAIL. William R. Bates. November 9, 1949. 16p. diagrs., tab. (NACA RM L9H17) (Declassified from Restricted, 12/14/53)

ARRANGEMENT OF BODIES OF REVOLUTION IN SUPERSONIC FLOW TO REDUCE WAVE DRAG. Morris D. Friedman. December 1951. 17p. diagrs. (NACA RM A51I20)

SOME EFFECTS OF ASPECT RATIO AND TAIL LENGTH ON THE CONTRIBUTION OF A VERTICAL TAIL TO UNSTEADY LATERAL DAMPING AND DIRECTIONAL STABILITY OF A MODEL OSCILLATING CONTINUOUSLY IN YAW. Lewis R. Fisher. January 1954. 49p. diagrs., photos., 6 tabs. (NACA TN 3121)

THEORETICAL SUPERSONIC FORCE AND MOMENT COEFFICIENTS ON A SIDESLIPPING VERTICAL- AND HORIZONTAL-TAIL COMBINATION WITH SUBSONIC LEADING EDGES AND SUPERSONIC TRAILING EDGES. Frank S. Malvestuto, Jr. March 1954. 69p. diagrs., 2 tabs. (NACA TN 3071)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

Wing-Fuselage
(1.7.1.1.1)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

EFFECTS OF A FUSELAGE ON THE AERODYNAMIC CHARACTERISTICS OF A 42° SWEPTBACK WING AT REYNOLDS NUMBERS TO 8,000,000. Reino J. Salmi, D. William Conner and Robert R. Graham. June 10, 1947. 32p. diagrs., photos. (NACA RM L7E13) (Declassified from Restricted, 12/14/53)

RESULTS OF FLIGHT TESTS AT SUPERSONIC SPEEDS TO DETERMINE THE EFFECT OF BODY NOSE FINENESS RATIO ON BODY AND WING DRAG. Ellis R. Katz. June 26, 1947. 14p. diagrs., photo. (NACA RM L7B19) (Declassified from Confidential, 10/21/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS AND SIDEWASH ANGLES OF A 42° SWEPTBACK CIRCULAR-ARC WING WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT A REYNOLDS NUMBER OF 5,300,000. Reino J. Salmi and James E. Fitzpatrick. December 10, 1947. 38p. diagrs., photos., tab. (NACA RM L7I30) (Declassified from Restricted, 12/14/53)

Wing-Fuselage - Airplanes (Cont.)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 34° SWEPTFORWARD WING WITH CIRCULAR-ARC AIRFOIL SECTIONS. D. William Conner and Patrick A. Cancro. January 9, 1948, 35p. diagrs., photos. (NACA RM L7F04a) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF TWO ALL-MOVABLE WINGS TESTED IN THE PRESENCE OF A FUSELAGE AT A MACH NUMBER OF 1.9. D. William Conner. October 28, 1948. 20p. diagrs., photos., tab. (NACA RM L8H04) (Declassified from Restricted, 12/7/53)

PRESSURE DISTRIBUTIONS OVER A WING-FUSELAGE MODEL AT MACH NUMBERS OF 0.4 TO 0.99 AND AT 1.2. Clarence W. Matthews. November 3, 1948. 24p. diagrs. (NACA RM L8H06) (Declassified from Confidential, 1/8/54)

YAW CHARACTERISTICS OF A 52° SWEPTBACK WING OF NACA 64_1-112 SECTION WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT REYNOLDS NUMBERS FROM 1.93×10^6 TO 6.00×10^6. Reino J. Salmi. November 8, 1948. 33p. diagrs., photos. (NACA RM L8H12) (Declassified from Restricted, 12/7/53)

LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A CANARD MODEL HAVING A 60° TRIANGULAR WING AND HORIZONTAL TAIL. William R. Bates. November 9, 1949. 16p. diagrs., tab. (NACA RM L9H17) (Declassified from Restricted, 12/14/53)

EXPLORATORY INVESTIGATION OF THE EFFECT OF SKEWED PLAIN NOSE FLAPS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR-WING-FUSELAGE MODEL. Bradford H. Wick and David Graham. January 12, 1950. 12p. diagrs., photo. (NACA RM A9K22) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8×10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

LOW-SPEED INVESTIGATION OF LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 47.5° SWEPTBACK WING OF ASPECT RATIO 3.4 AT A REYNOLDS NUMBER OF 4.4×10^6. Jerome Pasamanick and Thomas B. Sellers. June 12, 1950. 29p. diagrs., photo. (NACA RM L50E02) (Declassified from Restricted, 12/11/53)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF TWO LOW-ASPECT-RATIO WINGS CAMBERED AND TWISTED TO PROVIDE A UNIFORM LOAD AT A SUPERSONIC FLIGHT CONDITION. Lewis R. Fisher. June 6, 1951. 24p. diagrs., photos. (NACA RM L51C20)

LOW-SPEED STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet, M. J. Queijo and Jacob H. Lichtenstein. June 27, 1951. 30p. diagrs., photos. (NACA RM L51D20a)

LOW-SPEED INVESTIGATION OF SEVERAL TYPES OF SPLIT FLAP ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0×10^6. Stanley H. Spooner and Ernst F. Mollenberg. July 1951. 41p. diagrs., photo., tab. (NACA RM L51D20)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF SINGLE SLOTTED AND DOUBLE SLOTTED FLAPS ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.0×10^6. Ernst F. Mollenberg and Stanley H. Spooner. September 1951. 23p. diagrs., photos., 3 tabs. (NACA RM L51E24)

METHOD OF ESTIMATING THE STICK-FIXED LONGITUDINAL STABILITY OF WING-FUSELAGE CONFIGURATIONS HAVING UNSWEPT OR SWEPT WINGS. Milton D. McLaughlin. January 1952. 41p. diagrs., 3 tabs. (NACA RM L51J23)

THEORETICAL CALCULATION OF THE EFFECT OF THE FUSELAGE ON THE SPANWISE LIFT DISTRIBUTION ON A WING. Martin Zlotnick and Franklin W. Diederich. March 1952. 27p. diagrs. (NACA RM L51J19)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF NACELLES ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 60° SWEPTBACK DELTA-WING - FUSELAGE COMBINATION WITH NACA 65A003 AIRFOIL SECTIONS. William I. Scallion. July 1952. 21p. diagrs., photos., 3 tabs. (NACA RM L52F04)

EXPERIMENTAL AND THEORETICAL STUDY OF THE INTERFERENCE AT LOW SPEED BETWEEN SLENDER BODIES AND TRIANGULAR WINGS. Edward J. Hopkins and Hubert C. Carel. May 1953. 40p. diagrs., photos., tab. (NACA RM A53A14)

SURVEYS OF THE FLOW FIELDS AT THE PROPELLER PLANES OF SIX 40° SWEPTBACK WING-FUSELAGE-NACELLE COMBINATIONS. Vernon L. Rogallo and John L. McCloud III. June 1953. 57p. diagrs., photos. (NACA TN 2957)

THEORETICAL INVESTIGATION OF THE SUPERSONIC LIFT AND DRAG OF THIN, SWEPTBACK WINGS WITH INCREASED SWEEP NEAR THE ROOT. Doris Cohen and Morris D. Friedman. June 1953. 51p. diagrs. (NACA TN 2959)

A SIMPLIFIED MATHEMATICAL MODEL FOR CALCULATING AERODYNAMIC LOADING AND DOWNWASH FOR WING-FUSELAGE COMBINATIONS WITH WINGS OF ARBITRARY PLAN FORM. Martin Zlotnick and Samuel W. Robinson, Jr. January 1954. 38p. diagrs. (NACA TN 3057. Formerly RM L52J27a)

Wing-Fuselage - Airplanes (Cont.)

THE ZERO-LIFT DRAG OF A 60° DELTA-WING—BODY COMBINATION (AGARD MODEL 2) OBTAINED FROM FREE-FLIGHT TESTS BETWEEN MACH NUMBERS OF 0.8 AND 1.7. Robert O. Piland. April 1954. 11p. diagrs., 2 tabs. (NACA TN 3081)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

DOWNWASH CHARACTERISTICS AND VORTEX-SHEET SHAPE BEHIND A 63° SWEPT-BACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.1 x 10^6. William H. Tolhurst, Jr. May 1954. 45p. diagrs., photo. (NACA TN 3175. Formerly RM A52J08)

Wing-Nacelle (1.7.1.1.2)

THE DEVELOPMENT OF JET-ENGINE NACELLES FOR A HIGH-SPEED BOMBER DESIGN. Robert E. Dannenberg. August 29, 1947. 37p. diagrs., photos., tab. (NACA RM A7D10) (Declassified from Restricted, 12/14/53)

EFFECT OF STRUT-MOUNTED WING TANKS ON THE DRAG OF NACA RM-2 TEST VEHICLES IN FLIGHT AT TRANSONIC SPEEDS. Sidney R. Alexander. November 18, 1948. 13p. diagrs., photos. (NACA RM L8H31a) (Declassified from Confidential, 1/8/54)

AN EXPERIMENTAL INVESTIGATION OF A JET-ENGINE NACELLE IN SEVERAL POSITIONS ON A 37.25° SWEPTBACK WING. Robert E. Dannenberg and James R. Blackaby. April 19, 1950. 51p. diagrs., photos., 4 tabs. (NACA RM A50A13) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF COMPRESSIBILITY ON THE PRESSURES ON A BODY OF REVOLUTION AND ON THE AERODYNAMIC CHARACTERISTICS OF A WING-NACELLE COMBINATION CONSISTING OF THE BODY OF REVOLUTION MOUNTED ON A SWEPT-BACK WING. Frederick W. Boltz and Benjamin H. Beam. July 26, 1950. 68p. diagrs., photos., 2 tabs. (NACA RM A50E09) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF A JET-ENGINE NACELLE ON THE AERODYNAMIC CHARACTERISTICS OF A 37.25° SWEPTBACK WING AT HIGH SUBSONIC SPEEDS. Frederick W. Boltz and Donald A. Buell. October 24, 1950. 28p. diagrs., photos. (NACA RM A50H23) (Declassified from Restricted, 12/11/53)

THEORETICAL CALCULATION OF THE EFFECT OF THE FUSELAGE ON THE SPANWISE LIFT DISTRIBUTION ON A WING. Martin Zlotnick and Franklin W. Diederich. March 1952. 27p. diagrs. (NACA RM L51J19)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF NACELLES ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 60° SWEPTBACK DELTA-WING - FUSELAGE COMBINATION WITH NACA 65A003 AIRFOIL SECTIONS. William I. Scallion. July 1952. 21p. diagrs., photos., 3 tabs. (NACA RM L52F04)

SURVEYS OF THE FLOW FIELDS AT THE PROPELLER PLANES OF SIX 40° SWEPTBACK WING-FUSELAGE-NACELLE COMBINATIONS. Vernon L. Rogallo and John L. McCloud III. June 1953. 57p. diagrs., photos. (NACA TN 2957)

Tail-Wing and Fuselage (1.7.1.1.3)

HIGH-SPEED WIND-TUNNEL TESTS OF A 1/16-SCALE MODEL OF THE D-558 RESEARCH AIRPLANE. LIFT AND DRAG CHARACTERISTICS OF THE D-558-I AND VARIOUS WING AND TAIL CONFIGURATIONS. John B. Wright and Donald L. Loving. April 18, 1947. 43p. diagrs., 2 tabs. (NACA RM L6J09) (Declassified from Restricted, 12/14/53)

AN ANALYSIS OF THE EFFECTS OF WING ASPECT RATIO AND TAIL LOCATION ON STATIC LONGITUDINAL STABILITY BELOW THE MACH NUMBER OF LIFT DIVERGENCE. John S. Axelson and J. Conrad Crown. January 9, 1948. 14p. diagrs. (NACA RM A7J13) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL EQUIPPED WITH A VARIABLE-SWEEP WING. Charles J. Donlan and William C. Sleeman, Jr. May 23, 1949. 43p. tab., diagrs., photos. (NACA RM L9B18) (Declassified from Restricted, 12/7/53)

EFFECTS OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF A TRIANGULAR-WING MODEL. Byron M. Jaquet and Jack D. Brewer. June 29, 1949. 60p. diagrs., photos., 2 tabs. (NACA RM L9E18) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A CANARD MODEL HAVING A 60° TRIANGULAR WING AND HORIZONTAL TAIL. William R. Bates. November 9, 1949. 16p. diagrs., tab. (NACA RM L9H17) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8 x 10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

Tail-Wing and Fuselage - Airplanes (Cont.)

EFFECT OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Alex Goodman. June 19, 1950. 35p. diagrs., photos., 2 tabs. (NACA RM L50E12a) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED LONGITUDINAL AND LATERAL CONTROL CHARACTERISTICS OF A TRIANGULAR-WING MODEL OF ASPECT RATIO 2.31 HAVING CONSTANT-CHORD CONTROL SURFACES. Walter D. Wolhart and William H. Michael, Jr. September 6, 1950. 41p. diagrs., photo., 2 tabs. (NACA RM L50G17) (Declassified from Restricted, 12/11/53)

AN INVESTIGATION OF THE EFFECT OF VERTICAL-FIN LOCATION AND AREA ON LOW-SPEED LATERAL STABILITY DERIVATIVES OF A SEMITAILLESS AIRPLANE MODEL. Lewis R. Fisher and William H. Michael, Jr. March 7, 1951. 41p. diagrs., photos. (NACA RM L51A10) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL POSITION ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING EQUIPPED WITH CHORDWISE FENCES. M. J. Queijo and Walter D. Wolhart. November 1951. 28p. diagrs., photo., tab. (NACA RM L51H17)

EXPERIMENTAL DETERMINATION OF THE EFFECT OF HORIZONTAL-TAIL SIZE, TAIL LENGTH, AND VERTICAL LOCATION ON LOW-SPEED STATIC LONGITUDINAL STABILITY AND DAMPING IN PITCH OF A MODEL HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Jacob H. Lichtenstein. 1952. ii, 22p. diagrs., photos., 3 tabs. (NACA Rept. 1096. Formerly TN 2381; TN 2382)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF PROPELLER OPERATION AT HIGH THRUST ON THE LONGITUDINAL STABILITY AND TRIM OF A TWIN-ENGINE AIRPLANE CONFIGURATION. William C. Sleeman, Jr. and Edward L. Linsley. July 1952. 66p. diagrs., photos. (NACA RM L52D04)

SOME EFFECTS OF FREQUENCY ON THE CONTRIBUTION OF A VERTICAL TAIL TO THE FREE AERODYNAMIC DAMPING OF A MODEL OSCILLATING IN YAW. John D. Bird, Lewis R. Fisher and Sadie M. Hubbard. 1953. ii, 17p. diagrs., photo. (NACA Rept. 1130. Formerly TN 2657)

INVESTIGATION OF MUTUAL INTERFERENCE EFFECTS OF SEVERAL VERTICAL-TAIL–FUSELAGE CONFIGURATIONS IN SIDESLIP. William H. Michael, Jr. January 1954. 35p. diagrs., photos., 3 tabs. (NACA TN 3135)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

Propeller and Jet Interference (1.7.1.1.4)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF PROPELLER OPERATION AT HIGH THRUST ON THE LONGITUDINAL STABILITY AND TRIM OF A TWIN-ENGINE AIRPLANE CONFIGURATION. William C. Sleeman, Jr. and Edward L. Linsley. July 1952. 66p. diagrs., photos. (NACA RM L52D04)

External Stores (1.7.1.1.5)

RESUME OF WIND-TUNNEL DATA ON THE EFFECT OF EXTERNAL STORES ON STABILITY OF MODELS OF MILITARY AIRPLANES. H. Norman Silvers and Raymond D. Vogler. December 19, 1946. 7p. 2 tabs. (NACA RM L6K08) (Declassified from Restricted, 12/14/53)

EFFECT OF STRUT-MOUNTED WING TANKS ON THE DRAG OF NACA RM-2 TEST VEHICLES IN FLIGHT AT TRANSONIC SPEEDS. Sidney R. Alexander. November 18, 1948. 13p. diagrs., photos. (NACA RM L8H31a) (Declassified from Confidential, 1/8/54)

EFFECTS OF WING-TIP TURRETS ON THE AERODYNAMIC CHARACTERISTICS OF A TYPICAL BOMBER-WING MODEL. Lee E. Boddy and Fred B. Sutton. March 28, 1949. 22p. diagrs., photos. (NACA RM A9B09) (Declassified from Restricted, 12/10/53)

ARRANGEMENT OF BODIES OF REVOLUTION IN SUPERSONIC FLOW TO REDUCE WAVE DRAG. Morris D. Friedman. December 1951. 17p. diagrs. (NACA RM A51I20)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF NACELLES ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 60° SWEPTBACK DELTA-WING - FUSELAGE COMBINATION WITH NACA 65A003 AIRFOIL SECTIONS. William I. Scallion. July 1952. 21p. diagrs., photos., 3 tabs. (NACA RM L52F04)

MOMENT OF INERTIA AND DAMPING OF FLUID IN TANKS UNDERGOING PITCHING OSCILLATIONS. Edward Widmayer, Jr. and James R. Reese. June 1953. 9p. diagrs. (NACA RM L53E01a)

SPECIFIC AIRPLANES (1.7.1.2)

HIGH-SPEED WIND-TUNNEL TESTS OF A 1/16-SCALE MODEL OF THE D-558 RESEARCH AIRPLANE. LIFT AND DRAG CHARACTERISTICS OF THE D-558-I AND VARIOUS WING AND TAIL CONFIGURATIONS. John B. Wright and Donald L. Loving. April 18, 1947. 43p. diagrs., 2 tabs. (NACA RM L6J09) (Declassified from Restricted, 12/14/53)

Specific Airplanes (Cont.)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14, 53)

DITCHING TESTS WITH A 1/16-SIZE MODEL OF THE NAVY XP2V-1 AIRPLANE AT THE LANGLEY TANK NO. 2 MONORAIL. Lloyd J. Fisher and Robert P. Tarshis. May 18, 1950. 40p. diagrs., photos., tab. (NACA RM L50C23) (Declassified from Restricted, 12/8/53)

ANALYSIS OF V-g RECORDS FROM THE GRUMMAN F8F-2 AIRPLANE. James O. Thornton. July 1952. 11p. diagrs., tab. (NACA RM L51J25)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

AN ANALYTICAL STUDY OF THE EFFECT OF AIRPLANE WAKE ON THE LATERAL DISPERSION OF AERIAL SPRAYS. Wilmer H. Reed, III. October 1953. 46p. diagrs., 3 tabs. (NACA TN 3032)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

PERFORMANCE
(1.7.1.3)

AN ANALYSIS OF THE POWER-OFF LANDING MANEUVER IN TERMS OF THE CAPABILITIES OF THE PILOT AND THE AERODYNAMIC CHARACTERISTICS OF THE AIRPLANE. Albert E. von Doenhoff and George W. Jones, Jr. August 1953. 42p. diagrs. (NACA TN 2967)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

AN ANALYSIS OF TURBOJET-ENGINE-INLET MATCHING. DeMarquis D. Wyatt. September 1953. 19p. diagrs. (NACA TN 3012)

THE ZERO-LIFT DRAG OF A 60° DELTA-WING--BODY COMBINATION (AGARD MODEL 2) OBTAINED FROM FREE-FLIGHT TESTS BETWEEN MACH NUMBERS OF 0.8 AND 1.7. Robert O. Piland. April 1954. 11p. diagrs., 2 tabs. (NACA TN 3081)

MISSILES
(1.7.2)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

THE SIMILARITY LAW FOR HYPERSONIC FLOW AND REQUIREMENTS FOR DYNAMIC SIMILARITY OF RELATED BODIES IN FREE FLIGHT. Frank M. Hamaker, Stanford E. Neice and Thomas J. Wong. 1953. ii, 11p. diagrs. (NACA Rept. 1147. Formerly TN 2443; TN 2631)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

COMPONENTS IN COMBINATION
(1.7.2.1)

RESULTS OF TESTS TO DETERMINE THE EFFECT OF A CONICAL WINDSHIELD ON THE DRAG OF A BLUFF BODY AT SUPERSONIC SPEEDS. Sidney R. Alexander. January 14, 1947. 12p. diagrs., photos. (NACA RM L6K08a) (Declassified from Confidential, 10/21/53)

FLIGHT TESTS TO DETERMINE THE EFFECT OF LENGTH OF A CONICAL WINDSHIELD ON THE DRAG OF A BLUFF BODY AT SUPERSONIC SPEEDS. Sidney R. Alexander and Ellis Katz. January 29, 1947. 13p. diagrs., photo. (NACA RM L6J16a) (Declassified from Confidential, 10/21/53)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

ESTIMATION OF FORCES AND MOMENTS DUE TO ROLLING FOR SEVERAL SLENDER-TAIL CONFIGURATIONS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Frank S. Malvestuto, Jr. July 1953. 71p. diagrs. (NACA TN 2955)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

Components in Combination - Missiles (Cont.)

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

Wing-Body (1.7.2.1.1)

AERODYNAMIC CHARACTERISTICS OF TWO ALL-MOVABLE WINGS TESTED IN THE PRESENCE OF A FUSELAGE AT A MACH NUMBER OF 1.9. D. William Conner. October 28, 1948. 20p. diagrs., photos., tab. (NACA RM L8H04) (Declassified from Restricted, 12/7/53)

PRESSURE DISTRIBUTIONS OVER A WING-FUSELAGE MODEL AT MACH NUMBERS OF 0.4 TO 0.99 AND AT 1.2. Clarence W. Matthews. November 3, 1948. 24p. diagrs. (NACA RM L8H06) (Declassified from Confidential, 1/8/54)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL AND THEORETICAL STUDY OF THE INTERFERENCE AT LOW SPEED BETWEEN SLENDER BODIES AND TRIANGULAR WINGS. Edward J. Hopkins and Hubert C. Carel. May 1953. 40p. diagrs., photos., tab. (NACA RM A53A14)

AERODYNAMICS OF SLENDER WINGS AND WING-BODY COMBINATIONS HAVING SWEPT TRAILING EDGES. Harold Mirels. March 1954. ii, 96p. diagrs. (NACA TN 3105)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

Tail-Body (1.7.2.1.2)

EFFECT OF NUMBER OF FINS ON THE DRAG OF A POINTED BODY OF REVOLUTION AT LOW SUPERSONIC VELOCITIES. N. Mastrocola. April 7, 1947. 10p. diagrs., photos. (NACA RM L7A08) (Declassified from Confidential, 1/8/54)

FLIGHT INVESTIGATION AT HIGH-SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE ZERO-LIFT DRAG OF BODIES OF REVOLUTION HAVING FINENESS RATIO OF 6.04 AND VARYING POSITIONS OF MAXIMUM DIAMETER. Ellis R. Katz. August 31, 1949. 17p. diagrs., photo. (NACA RM L9F02) (Declassified from Confidential, 1/8/54)

A FLIGHT INVESTIGATION OF THE EFFECT OF STEADY ROLLING ON THE NATURAL FREQUENCIES OF A BODY-TAIL COMBINATION. Norman R. Bergrun and Paul A. Nickel. August 1953. 27p. diagrs., photo., 2 tabs. (NACA TN 2985)

SPECIFIC MISSILES (1.7.2.2)

RESULTS OF PRELIMINARY FLIGHT INVESTIGATION OF AERODYNAMIC CHARACTERISTICS OF THE NACA TWO-STAGE SUPERSONIC RESEARCH MODEL RM-1 STABILIZED IN ROLL AT TRANSONIC AND SUPERSONIC VELOCITIES. Marvin Pitkin, William N. Gardner and Howard J. Curfman, Jr. March 19, 1947. 55p. diagrs., photos. (NACA RM L6J23) (Declassified from Confidential, 11/10/53)

TRANSONIC-FLUTTER INVESTIGATION OF WINGS ATTACHED TO TWO LOW-ACCELERATION ROCKET-PROPELLED VEHICLES. Reginald R. Lundstrom, William T. Lauten, Jr. and Ellwyn E. Angle. November 23, 1948. 24p. diagrs., photos., 3 tabs. (NACA RM L8I30) (Declassified from Restricted, 12/14/53)

ROTATING-WING AIRCRAFT (1.7.3)

INFLUENCE OF ROTOR-ENGINE TORSIONAL OSCILLATION ON CONTROL OF GAS-TURBINE ENGINE GEARED TO HELICOPTER ROTORS. John C. Sanders. October 1953. 40p. diagrs., photos., 2 tabs. (NACA TN 3027)

AUTOGIROS (1.7.3.1)

CHARTS FOR ESTIMATION OF THE PROFILE DRAG-LIFT RATIO OF A HELICOPTER ROTOR HAVING RECTANGULAR BLADES WITH -8° TWIST. F. B. Gustafson. October 1953. 18p. diagrs. (NACA RM L53G20a)

HELICOPTERS (1.7.3.2)

INITIAL RESULTS OF INSTRUMENT-FLYING TRIALS CONDUCTED IN A SINGLE-ROTOR HELICOPTER. Almer D. Crim, John P. Reeder and James B. Whitten. 1953. ii, 7p., diagrs., photos. (NACA Rept. 1137. Formerly TN 2721)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

Helicopters - Rotating-Wing Aircraft (Cont.)

INVESTIGATION OF A RAM-JET-POWERED HELICOPTER ROTOR ON THE LANGLEY HELICOPTER TEST TOWER. Paul J. Carpenter and Edward J. Radin. June 1953. 32p. diagrs., photos. (NACA RM L53D02)

STUDIES OF THE LATERAL-DIRECTIONAL FLYING QUALITIES OF A TANDEM HELICOPTER IN FORWARD FLIGHT. Kenneth B. Amer and Robert J. Tapscott. August 1953. 42p. diagrs., photos., tab. (NACA TN 2984)

FLIGHT MEASUREMENTS AND ANALYSIS OF HELICOPTER NORMAL LOAD FACTORS IN MANEUVERS. F. B. Gustafson and Almer D. Crim. August 1953. 29p. diagrs., photos., 2 tabs. (NACA TN 2990)

METHOD FOR STUDYING HELICOPTER LONGITUDINAL MANEUVER STABILITY. Kenneth B. Amer. October 1953. ii, 52p. diagrs., photos., 2 tabs. (NACA TN 3022)

INFLUENCE OF ROTOR-ENGINE TORSIONAL OSCILLATION ON CONTROL OF GAS-TURBINE ENGINE GEARED TO HELICOPTER ROTORS. John C. Sanders. October 1953. 40p. diagrs., photos., 2 tabs. (NACA TN 3027)

CHARTS FOR ESTIMATION OF THE PROFILE DRAG-LIFT RATIO OF A HELICOPTER ROTOR HAVING RECTANGULAR BLADES WITH -8° TWIST. F. B. Gustafson. October 1953. 18p. diagrs. (NACA RM L53G20a)

COMPARISON OF THE PERFORMANCE OF A HELICOPTER-TYPE RAM-JET ENGINE UNDER VARIOUS CENTRIFUGAL LOADINGS. Edward J. Radin and Paul J. Carpenter. October 1953. 17p. diagrs., photos. (NACA RM L53H18a)

EFFECT OF A RAPID BLADE-PITCH INCREASE ON THE THRUST AND INDUCED-VELOCITY RESPONSE OF A FULL-SCALE HELICOPTER ROTOR. Paul J. Carpenter and Bernard Fridovich. November 1953. 26p. diagrs., photos. (NACA TN 3044)

ONE-DIMENSIONAL, COMPRESSIBLE, VISCOUS FLOW RELATIONS APPLICABLE TO FLOW IN A DUCTED HELICOPTER BLADE. John R. Henry. December 1953. 16p. diagrs. (NACA TN 3089)

A PRELIMINARY INVESTIGATION OF THE EFFECTS OF GUSTY AIR ON HELICOPTER-BLADE BENDING MOMENTS. Joseph W. Jewel, Jr. and Paul J. Carpenter. March 1954. 28p. diagrs., photos. (NACA TN 3074)

CHARTS FOR ESTIMATING TAIL-ROTOR CONTRIBUTION TO HELICOPTER DIRECTIONAL STABILITY AND CONTROL IN LOW-SPEED FLIGHT. Kenneth B. Amer and Alfred Gessow. May 1954. 54p. diagrs., photo., 2 tabs. (NACA TN 3156)

DIRECTIONAL STABILITY CHARACTERISTICS OF TWO TYPES OF TANDEM HELICOPTER FUSELAGE MODELS. James L. Williams. May 1954. 44p. diagrs., photos. (NACA TN 3201)

Stability and Control
(1.8)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

LANGLEY FULL-SCALE-TUNNEL INVESTIGATION OF MAXIMUM LIFT AND STABILITY CHARACTERISTICS OF AN AIRPLANE HAVING APPROXIMATELY TRIANGULAR PLAN FORM (DM-1 GLIDER). J. Calvin Lovell and Herbert A. Wilson, Jr. August 5, 1947. 44p. diagrs., photos., tab. (NACA RM L7F16) (Declassified from Restricted, 12/14/53)

DYNAMICS OF MECHANICAL FEEDBACK-TYPE HYDRAULIC SERVOMOTORS UNDER INERTIA LOADS. Harold Gold, Edward W. Otto and Victor L. Ransom. 1953. ii, 21p. diagrs., photos. (NACA Rept. 1125. Formerly TN 2767)

STUDIES OF THE LATERAL-DIRECTIONAL FLYING QUALITIES OF A TANDEM HELICOPTER IN FORWARD FLIGHT. Kenneth B. Amer and Robert J. Tapscott. August 1953. 42p. diagrs., photos., tab. (NACA TN 2984)

METHOD FOR STUDYING HELICOPTER LONGITUDINAL MANEUVER STABILITY. Kenneth B. Amer. October 1953. ii, 52p. diagrs., photos., 2 tabs. (NACA TN 3022)

STABILITY
(1.8.1)

EFFECTS OF A FUSELAGE ON THE AERODYNAMIC CHARACTERISTICS OF A 42° SWEPTBACK WING AT REYNOLDS NUMBERS TO 8,000,000. Reino J. Salmi, D. William Conner and Robert R. Graham. June 10, 1947. 32p. diagrs., photos. (NACA RM L7E13) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPT-BACK WING WITH ASPECT RATIO OF 3.5 AND NACA 2S-50(05)-50(05) AIRFOIL SECTIONS. Anthony J. Proterra. August 4, 1947. 21p. diagrs., photo. (NACA RM L7C11) (Declassified from Restricted, 12/14/53)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

RESUME OF WIND-TUNNEL DATA ON THE EFFECT OF EXTERNAL STORES ON STABILITY OF MODELS OF MILITARY AIRPLANES. H. Norman Silvers and Raymond D. Vogler. December 19, 1946. 7p. 2 tabs. (NACA RM L6K08) (Declassified from Restricted, 12/14/53)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC LONGITUDINAL AND LATERAL STABILITY CHARACTERISTICS OF TWO LOW-ASPECT-RATIO WINGS CAMBERED AND TWISTED TO PROVIDE A UNIFORM LOAD AT A SUPERSONIC FLIGHT CONDITION. Lewis R. Fisher. June 6, 1951. 24p. diagrs., photos. (NACA RM L51C20)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF WING LEADING-EDGE MODIFICATIONS AND SEVERAL OUTBOARD FIN ARRANGEMENTS ON THE STATIC STABILITY CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR WING. H. Clyde McLemore. January 1952. 64p. diagrs., photo., tab. (NACA RM L51J05)

STATIC
(1.8.1.1)

Longitudinal
(1.8.1.1.1)

AN INVESTIGATION OF THE EFFECTS OF SWEEP ON THE CHARACTERISTICS OF A HIGH-ASPECT-RATIO WING IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. February 14, 1947. 74p. diagrs., photos., 4 tabs. (NACA RM L6J01a) (Declassified from Restricted, 8/14/53)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

PRELIMINARY RESULTS OF A FLIGHT INVESTIGATION TO DETERMINE THE EFFECT OF NEGATIVE FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. December 16, 1947. 22p. diagrs., photos. (NACA RM A7I26) (Declassified from Restricted, 12/14/53)

Longitudinal Static Stability (Cont.)

AN ANALYSIS OF THE EFFECTS OF WING ASPECT RATIO AND TAIL LOCATION ON STATIC LONGITUDINAL STABILITY BELOW THE MACH NUMBER OF LIFT DIVERGENCE. John S. Axelson and J. Conrad Crown. January 9, 1948. 14p. diagrs. (NACA RM A7J13) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT TRANSONIC SPEEDS OF A SEMISPAN AIRPLANE MODEL HAVING A 45° SWEPTBACK WING AND TAIL AS OBTAINED BY THE TRANSONIC-BUMP METHOD. M. Leroy Spearman. June 30, 1948. 21p. diagrs., photo., tab. (NACA RM L8C11) (Declassified from Restricted, 12/14/53)

TESTS OF A TRIANGULAR WING OF ASPECT RATIO 2 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. III - THE EFFECTIVENESS AND HINGE MOMENTS OF A SKEWED WING-TIP FLAP. Carl D. Kolbe and Bruce E. Tinling. September 21, 1948. 30p. diagrs., photo. (NACA RM A8E21) (Declassified from Restricted, 12/14/53)

FULL-SCALE INVESTIGATION OF AN EQUILATERAL TRIANGULAR WING HAVING 10-PERCENT-THICK BICONVEX AIRFOIL SECTIONS. Edward F. Whittle, Jr. and J. Calvin Lovell. September 30, 1948. 32p. diagrs., photos. (NACA RM L8G05) (Declassified from Restricted, 12/14/53)

EFFECT OF HIGH-LIFT DEVICES ON THE LONGITUDINAL AND LATERAL CHARACTERISTICS OF A 45° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS. Eugene R. Guryansky and Stanley Lipson. October 1, 1948. 45p. diagrs., photo. (NACA RM L8D06) (Declassified from Restricted, 12/14/53)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. SUBSONIC MACH AND REYNOLDS NUMBER EFFECTS ON THE CHARACTERISTICS OF THE WING AND ON THE EFFECTIVENESS OF AN ELEVON. Robert M. Reynolds and Donald W. Smith. October 11, 1948. 56p. diagrs., photos., tab. (NACA RM A8D20) (Declassified from Restricted, 12/14/53)

PRELIMINARY CORRELATION OF THE EFFECT OF COMPRESSIBILITY ON THE LOCATION OF THE SECTION AERODYNAMIC CENTER AT SUBCRITICAL SPEEDS. Edward C. Polhamus. November 3, 1948. 7p. diagr., tab. (NACA RM L8D14) (Declassified from Restricted, 12/14/53)

EFFECT OF LEADING-EDGE HIGH-LIFT DEVICES AND SPLIT FLAPS ON THE MAXIMUM-LIFT AND LATERAL CHARACTERISTICS OF A RECTANGULAR WING OF ASPECT RATIO 3.4 WITH CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 2.9×10^6 TO 8.4×10^6. Roy H. Lange and Ralph W. May, Jr. November 10, 1948. 70p. diagrs., photos. (NACA RM L8D30) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF VARIOUS PLUG-AILERON AND LIFT-FLAP CONFIGURATIONS ON A 42° SWEPTBACK SEMISPAN WING. Leslie E. Schneiter and James M. Watson. January 26, 1949. 45p. diagrs., photos. (NACA RM L8K19) (Declassified from Restricted, 12/14/53)

EFFECTS OF WING-TIP TURRETS ON THE AERODYNAMIC CHARACTERISTICS OF A TYPICAL BOMBER-WING MODEL. Lee E. Boddy and Fred B. Sutton. March 28, 1949. 22p. diagrs., photos. (NACA RM A9B09) (Declassified from Restricted, 12/10/53)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE LONGITUDINAL STABILITY CHARACTERISTICS OF A MODEL EQUIPPED WITH A VARIABLE-SWEEP WING. Charles J. Donlan and William C. Sleeman, Jr. May 23, 1949. 43p. tab., diagrs., photos. (NACA RM L9B18) (Declassified from Restricted, 12/7/53)

EFFECTS OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF A TRIANGULAR-WING MODEL. Byron M. Jaquet and Jack D. Brewer. June 29, 1949. 60p. diagrs., photos., 2 tabs. (NACA RM L9E18) (Declassified from Restricted, 12/14/53)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60° DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC LONGITUDINAL STABILITY CHARACTERISTICS OF A CANARD MODEL HAVING A 60° TRIANGULAR WING AND HORIZONTAL TAIL. William R. Bates. November 9, 1949. 16p. diagrs., tab. (NACA RM L9H17) (Declassified from Restricted, 12/14/53)

Longitudinal Static Stability (Cont.)

LOW-SPEED PRESSURE-DISTRIBUTION AND FLOW INVESTIGATION FOR A LARGE PITCH AND YAW RANGE OF THREE LOW-ASPECT-RATIO POINTED WINGS HAVING LEADING EDGE SWEPT BACK 60° AND BICONVEX SECTIONS. Ralph W. May, Jr. and John G. Hawes. November 18, 1949. 109p. diagrs., photos., tab. (NACA RM L9J07) (Declassified from Restricted, 12/14/53)

EXPLORATORY INVESTIGATION OF THE EFFECT OF SKEWED PLAIN NOSE FLAPS ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE TRIANGULAR-WING-FUSELAGE MODEL. Bradford H. Wick and David Graham. January 12, 1950. 12p. diagrs., photo. (NACA RM A9K22) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8 x 10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS WITH ASPECT RATIOS OF 5.1 AND 6.0 AT REYNOLDS NUMBERS UP TO 10 x 10^6. Reino J. Salmi and Robert J. Carros. March 30, 1950. 25p. diagrs., photo. (NACA RM L50A04) (Declassified from Restricted, 12/7/53)

AN EXPERIMENTAL INVESTIGATION OF A JET-ENGINE NACELLE IN SEVERAL POSITIONS ON A 37.25° SWEPTBACK WING. Robert E. Dannenberg and James R. Blackaby. April 19, 1950. 51p. diagrs., photos., 4 tabs. (NACA RM A50A13) (Declassified from Restricted, 12/11/53)

LOW-SPEED INVESTIGATION OF LEADING-EDGE AND TRAILING-EDGE FLAPS ON A 47.5° SWEPTBACK WING OF ASPECT RATIO 3.4 AT A REYNOLDS NUMBER OF 4.4 x 10^6. Jerome Pasamanick and Thomas B. Sellers. June 12, 1950. 29p. diagrs., photo. (NACA RM L50E02) (Declassified from Restricted, 12/11/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4 x 10^6 TO 6.0 x 10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

LOW-SPEED PRESSURE-DISTRIBUTION MEASUREMENTS AT A REYNOLDS NUMBER OF 3.5 x 10^6 ON A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. U. Reed Barnett, Jr. and Roy H. Lange. July 7, 1950. 39p. diagrs., photo. (NACA RM L50A23a) (Declassified from Restricted, 12/11/53)

EFFECTS OF LEADING-EDGE DEVICES AND TRAILING-EDGE FLAPS ON LONGITUDINAL CHARACTERISTICS OF TWO 47.7° SWEPTBACK WINGS OF ASPECT RATIOS 5.1 AND 6.0 AT A REYNOLDS NUMBER OF 6.0 x 10^6. Reino J. Salmi. August 30, 1950. 105p. diagrs., photos., tab. (NACA RM L50F20) (Declassified from Restricted, 12/7/53)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A SERIES OF SWEPT WINGS HAVING NACA 65A006 AIRFOIL SECTIONS. (Revised) Jones F. Cahill and Stanley M. Gottlieb. October 17, 1950. 63p. diagrs., photos. (NACA RM L50F16. Formerly RM L9J20) (Declassified from Restricted, 12/11/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. III - SECTION CHARACTERISTICS, FENCE STUDIES, AND TABULATED PRESSURE COEFFICIENTS WITH MODIFIED NACA 0012-64 SECTION, 26.6-PERCENT-CHORD, PLAIN AILERON, 0° AND 45° SWEEPBACK. Walter J. Krumm and Joseph W. Cleary. November 22, 1950. 79p. diagrs., photos., 4 tabs. (NACA RM A50H17) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECT OF CHORDWISE FENCES ON LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING. M. J. Queijo and Byron M. Jaquet. December 18, 1950. 47p. diagrs., photos. (NACA RM L50K07) (Declassified from Restricted, 12/8/53)

AN INVESTIGATION OF THE EFFECT OF VERTICAL-FIN LOCATION AND AREA ON LOW-SPEED LATERAL STABILITY DERIVATIVES OF A SEMITAILLESS AIRPLANE MODEL. Lewis R. Fisher and William H. Michael, Jr. March 7, 1951. 41p. diagrs., photos. (NACA RM L51A10) (Declassified from Restricted, 12/11/53)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

LOW-SPEED STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet, M. J. Queijo and Jacob H. Lichtenstein. June 27, 1951. 30p. diagrs., photos. (NACA RM L51D20a)

THE USE OF TWO-DIMENSIONAL SECTION DATA TO ESTIMATE THE LOW-SPEED WING LIFT COEFFICIENT AT WHICH SECTION STALL FIRST APPEARS ON A SWEPT WING. Ralph L. Maki. July 1951. 37p. diagrs., photo., 4 tabs. (NACA RM A51E15)

LOW-SPEED INVESTIGATION OF SEVERAL TYPES OF SPLIT FLAP ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0 x 10^6. Stanley H. Spooner and Ernst F. Mollenberg. July 1951. 41p. diagrs., photo., tab. (NACA RM L51D20)

Longitudinal Static Stability (Cont.)

A FINITE-STEP METHOD FOR THE CALCULATION OF SPAN LOADINGS OF UNUSUAL PLAN FORMS. George S. Campbell. July 16, 1951. 34p. diagrs., 4 tabs. (NACA RM L50L13) (Declassified from Confidential, 3/10/54)

CALCULATED AERODYNAMIC LOADINGS OF M, W, AND Λ WINGS IN INCOMPRESSIBLE FLOW. Franklin W. Diederich and W. Owen Latham. August 30, 1951. 58p. diagrs., tab. (NACA RM L51E29) (Declassified from Confidential, 3/10/54)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF SINGLE SLOTTED AND DOUBLE SLOTTED FLAPS ON A 47.7° SWEPTBACK-WING - FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.0×10^6. Ernst F. Mollenberg and Stanley H. Spooner. September 1951. 23p. diagrs., photos., 3 tabs. (NACA RM L51E24)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL POSITION ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING EQUIPPED WITH CHORDWISE FENCES. M. J. Queijo and Walter D. Wolhart. November 1951. 28p. diagrs., photo., tab. (NACA RM L51H17)

COMPARISON OF TRANSONIC CHARACTERISTICS OF LIFTING WINGS FROM EXPERIMENTS IN A SMALL SLOTTED TUNNEL AND THE LANGLEY HIGH-SPEED 7- BY 10-FOOT TUNNEL. William C. Sleeman, Jr., Paul L. Klevatt and Edward L. Linsley. November 5, 1951. 44p. diagrs., photos. (NACA RM L51F14) (Declassified from Confidential, 3/10/54)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

EXPERIMENTAL DETERMINATION OF THE EFFECT OF HORIZONTAL-TAIL SIZE, TAIL LENGTH, AND VERTICAL LOCATION ON LOW-SPEED STATIC LONGITUDINAL STABILITY AND DAMPING IN PITCH OF A MODEL HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Jacob H. Lichtenstein. 1952. ii, 22p. diagrs., photos., 3 tabs. (NACA Rept. 1096. Formerly TN 2381; TN 2382)

FLIGHT INVESTIGATION OF A MECHANICAL FEEL DEVICE IN AN IRREVERSIBLE ELEVATOR CONTROL SYSTEM OF A LARGE AIRPLANE. B. Porter Brown, Robert G. Chilton and James B. Whitten. 1952. ii, 14p. diagrs. (NACA Rept. 1101. Formerly TN 2496)

METHOD OF ESTIMATING THE STICK-FIXED LONGITUDINAL STABILITY OF WING-FUSELAGE CONFIGURATIONS HAVING UNSWEPT OR SWEPT WINGS. Milton D. McLaughlin. January 1952. 41p. diagrs., 3 tabs. (NACA RM L51J23)

A PRELIMINARY LOW-SPEED WIND-TUNNEL INVESTIGATION OF A THIN DELTA WING EQUIPPED WITH A DOUBLE AND A SINGLE SLOTTED FLAP. Richard G. MacLeod. January 1952. 12p. diagrs., photo., 2 tabs. (NACA RM L51J26)

LOW-SPEED LONGITUDINAL CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH HIGH-LIFT AND STALL-CONTROL DEVICES AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. George L. Pratt and E. Rousseau Shields. February 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L51J04)

STUDIES OF THE FLOW FIELD BEHIND A LARGE SCALE 47.5° SWEPTBACK WING HAVING CIRCULAR-ARC AIRFOIL SECTIONS AND EQUIPPED WITH DROOPED-NOSE AND PLAIN FLAPS. Roy H. Lange and Marvin P. Fink. March 1952. 57p. diagrs., photos., tab. (NACA RM L51L12)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS, AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

LOW-SPEED LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A TWISTED AND CAMBERED WING OF 45° SWEEPBACK AND ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AND A FUSELAGE AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6. Reino J. Salmi. June 1952. 76p. diagrs., photo., 2 tabs. (NACA RM L52C11)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF PROPELLER OPERATION AT HIGH THRUST ON THE LONGITUDINAL STABILITY AND TRIM OF A TWIN-ENGINE AIRPLANE CONFIGURATION. William C. Sleeman, Jr. and Edward L. Linsley. July 1952. 66p. diagrs., photos. (NACA RM L52D04)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF NACELLES ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 60° SWEPTBACK DELTA-WING - FUSELAGE COMBINATION WITH NACA 65A003 AIRFOIL SECTIONS. William I. Scallion. July 1952. 21p. diagrs., photos., 3 tabs. (NACA RM L52F04)

INVESTIGATION AT LOW SPEED OF THE DOWNWASH, SIDEWASH, AND WAKE CHARACTERISTICS BEHIND A LARGE-SCALE TRIANGULAR WING, INCLUDING THE EFFECTS OF YAW, FULL-SPAN TRAILING-EDGE FLAPS, AND TWO LEADING-EDGE MODIFICATIONS. Edward F. Whittle, Jr. and John G. Hawes. October 27, 1952. 65p. diagrs., photos., tab. (NACA RM L52H19)

Longitudinal Static Stability (Cont.)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LOADING OF SWEPT AND UNSWEPT WINGS. Franklin W. Diederich and Kenneth A. Foss. 1953. iii, 48p. diagrs., 3 tabs. (NACA Rept. 1140. Formerly TN 2608)

A FLIGHT INVESTIGATION OF THE EFFECT OF STEADY ROLLING ON THE NATURAL FREQUENCIES OF A BODY-TAIL COMBINATION. Norman R. Bergrun and Paul A. Nickel. August 1953. 27p. diagrs., photo., 2 tabs. (NACA TN 2985)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

DOWNWASH CHARACTERISTICS AND VORTEX-SHEET SHAPE BEHIND A 63° SWEPT-BACK WING-FUSELAGE COMBINATION AT A REYNOLDS NUMBER OF 6.1 x 10^6. William H. Tolhurst, Jr. May 1954. 45p. diagrs., photo. (NACA TN 3175. Formerly RM A52J08)

Lateral
(1.8.1.1.2)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

YAW CHARACTERISTICS AND SIDEWASH ANGLES OF A 42° SWEPTBACK CIRCULAR-ARC WING WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT A REYNOLDS NUMBER OF 5,300,000. Reino J. Salmi and James E. Fitzpatrick. December 10, 1947. 38p. diagrs., photos., tab. (NACA RM L7I30) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

LANGLEY FULL-SCALE-TUNNEL INVESTIGATION OF THE CHARACTERISTICS IN YAW OF A TRAPEZOIDAL WING OF ASPECT RATIO 4 WITH CIRCULAR-ARC AIRFOIL SECTIONS. Ralph W. May, Jr. and George L. Stevens. August 30, 1948. 19p. diagrs., photos. (NACA RM L8C15) (Declassified from Restricted, 12/14/53)

FULL-SCALE INVESTIGATION OF AN EQUILATERAL TRIANGULAR WING HAVING 10-PERCENT-THICK BICONVEX AIRFOIL SECTIONS. Edward F. Whittle, Jr. and J. Calvin Lovell. September 30, 1948. 32p. diagrs., photos. (NACA RM L8G05) (Declassified from Restricted, 12/14/53)

EFFECT OF HIGH-LIFT DEVICES ON THE LONGITUDINAL AND LATERAL CHARACTERISTICS OF A 45° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS. Eugene R. Guryansky and Stanley Lipson. October 1, 1948. 45p. diagrs., photo. (NACA RM L8D06) (Declassified from Restricted, 12/14/53)

YAW CHARACTERISTICS OF A 52° SWEPTBACK WING OF NACA 64_1-112 SECTION WITH A FUSELAGE AND WITH LEADING-EDGE AND SPLIT FLAPS AT REYNOLDS NUMBERS FROM 1.93 x 10^6 TO 6.00 x 10^6. Reino J. Salmi. November 8, 1948. 33p. diagrs., photos. (NACA RM L8H12) (Declassified from Restricted, 12/7/53)

THE EFFECTS OF HIGH-LIFT DEVICES ON THE LOW-SPEED STABILITY CHARACTERISTICS OF A TAPERED 37.5° SWEPTBACK WING OF ASPECT RATIO 3 IN STRAIGHT AND ROLLING FLOW. M. J. Queijo and Jacob H. Lichtenstein. November 9, 1948. 27p. diagrs., photo., tab. (NACA RM L8I03) (Declassified from Restricted, 12/14/53)

EFFECT OF LEADING-EDGE HIGH-LIFT DEVICES AND SPLIT FLAPS ON THE MAXIMUM-LIFT AND LATERAL CHARACTERISTICS OF A RECTANGULAR WING OF ASPECT RATIO 3.4 WITH CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 2.9 x 10^6 TO 8.4 x 10^6. Roy H. Lange and Ralph W. May, Jr. November 10, 1948. 70p. diagrs., photos. (NACA RM L8D30) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs.; photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

Lateral Static Stability (Cont.)

EFFECTS OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF A TRIANGULAR-WING MODEL. Byron M. Jaquet and Jack D. Brewer. June 29, 1949. 60p. diagrs., photos., 2 tabs. (NACA RM L9E18) (Declassified from Restricted, 12/14/53)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60^{o} DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5×10^{6} OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45^{o} AT THE ROOT TO 20^{o} AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

AN INVESTIGATION OF THE EFFECT OF VERTICAL-FIN LOCATION AND AREA ON LOW-SPEED LATERAL STABILITY DERIVATIVES OF A SEMITAILLESS AIRPLANE MODEL. Lewis R. Fisher and William H. Michael, Jr. March 7, 1951. 41p. diagrs., photos. (NACA RM L51A10) (Declassified from Restricted, 12/11/53)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

SUMMARY OF METHODS FOR CALCULATING DYNAMIC LATERAL STABILITY AND RESPONSE AND FOR ESTIMATING LATERAL STABILITY DERIVATIVES. John P. Campbell and Marion O. McKinney. 1952. ii, 40p. diagrs., 2 tabs. (NACA Rept. 1098. Formerly TN 2409)

A FLIGHT INVESTIGATION OF THE EFFECT OF STEADY ROLLING ON THE NATURAL FREQUENCIES OF A BODY-TAIL COMBINATION. Norman R. Bergrun and Paul A. Nickel. August 1953. 27p. diagrs., photo., 2 tabs. (NACA TN 2985)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

THEORETICAL SUPERSONIC FORCE AND MOMENT COEFFICIENTS ON A SIDESLIPPING VERTICAL- AND HORIZONTAL-TAIL COMBINATION WITH SUBSONIC LEADING EDGES AND SUPERSONIC TRAILING EDGES. Frank S. Malvestuto, Jr. March 1954. 69p. diagrs., 2 tabs. (NACA TN 3071)

DIRECTIONAL STABILITY CHARACTERISTICS OF TWO TYPES OF TANDEM HELICOPTER FUSELAGE MODELS. James L. Williams. May 1954. 44p. diagrs., photos. (NACA TN 3201)

Directional (1.8.1.1.3)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

LANGLEY FULL-SCALE-TUNNEL INVESTIGATION OF THE CHARACTERISTICS IN YAW OF A TRAPEZOIDAL WING OF ASPECT RATIO 4 WITH CIRCULAR-ARC AIRFOIL SECTIONS. Ralph W. May, Jr. and George L. Stevens. August 30, 1948. 19p. diagrs., photos. (NACA RM L8C15) (Declassified from Restricted, 12/14/53)

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EFFECT OF HIGH-LIFT DEVICES ON THE LONGITUDINAL AND LATERAL CHARACTERISTICS OF A 45^{o} SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS. Eugene R. Guryansky and Stanley Lipson. October 1, 1948. 45p. diagrs., photo. (NACA RM L8D06) (Declassified from Restricted, 12/14/53)

THE EFFECTS OF HIGH-LIFT DEVICES ON THE LOW-SPEED STABILITY CHARACTERISTICS OF A TAPERED 37.5^{o} SWEPTBACK WING OF ASPECT RATIO 3 IN STRAIGHT AND ROLLING FLOW. M. J. Queijo and Jacob H. Lichtenstein. November 9, 1948. 27p. diagrs., photo., tab. (NACA RM L8I03) (Declassified from Restricted, 12/14/53)

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Directional Static Stability (Cont.)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

EFFECTS OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF A TRIANGULAR-WING MODEL. Byron M. Jaquet and Jack D. Brewer. June 29, 1949. 60p. diagrs., photos., 2 tabs. (NACA RM L9E18) (Declassified from Restricted, 12/14/53)

PRELIMINARY AERODYNAMIC INVESTIGATION OF THE EFFECT OF CAMBER ON A 60° DELTA WING WITH ROUND AND BEVELED LEADING EDGES. John M. Riebe and Joseph E. Fikes. August 16, 1949. 46p. diagrs., photos., tab. (NACA RM L9F10) (Declassified from Restricted, 12/14/53)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5 x 10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

ABILITY OF PILOTS TO CONTROL SIMULATED SHORT-PERIOD YAWING OSCILLATIONS. William H. Phillips and Donald C. Cheatham. November 13, 1950. 23p. diagrs., photos., tab. (NACA RM L50D06) (Declassified from Restricted, 12/11/53)

AN INVESTIGATION OF THE EFFECT OF VERTICAL-FIN LOCATION AND AREA ON LOW-SPEED LATERAL STABILITY DERIVATIVES OF A SEMITAILLESS AIRPLANE MODEL. Lewis R. Fisher and William H. Michael, Jr. March 7, 1951. 41p. diagrs., photos. (NACA RM L51A10) (Declassified from Restricted, 12/11/53)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

SUMMARY OF METHODS FOR CALCULATING DYNAMIC LATERAL STABILITY AND RESPONSE AND FOR ESTIMATING LATERAL STABILITY DERIVATIVES. John P. Campbell and Marion O. McKinney. 1952. ii, 40p. diagrs., 2 tabs. (NACA Rept. 1098. Formerly TN 2409)

A STUDY OF THE CHARACTERISTICS OF HUMAN-PILOT CONTROL RESPONSE TO SIMULATED AIRCRAFT LATERAL MOTIONS. Donald C. Cheatham. May 1952. 39p. diagrs., photos., tab. (NACA RM L52C17)

SOME EFFECTS OF FREQUENCY ON THE CONTRIBUTION OF A VERTICAL TAIL TO THE FREE AERODYNAMIC DAMPING OF A MODEL OSCILLATING IN YAW. John D. Bird, Lewis R. Fisher and Sadie M. Hubbard. 1953. ii, 17p. diagrs., photo. (NACA Rept. 1130. Formerly TN 2657)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

THEORETICAL SUPERSONIC FORCE AND MOMENT COEFFICIENTS ON A SIDESLIPPING VERTICAL- AND HORIZONTAL-TAIL COMBINATION WITH SUBSONIC LEADING EDGES AND SUPERSONIC TRAILING EDGES. Frank S. Malvestuto, Jr. March 1954. 69p. diagrs., 2 tabs. (NACA TN 3071)

CHARTS FOR ESTIMATING TAIL-ROTOR CONTRIBUTION TO HELICOPTER DIRECTIONAL STABILITY AND CONTROL IN LOW-SPEED FLIGHT. Kenneth B. Amer and Alfred Gessow. May 1954. 54p. diagrs., photo., 2 tabs. (NACA TN 3156)

DIRECTIONAL STABILITY CHARACTERISTICS OF TWO TYPES OF TANDEM HELICOPTER FUSELAGE MODELS. James L. Williams. May 1954. 44p. diagrs., photos. (NACA TN 3201)

DYNAMIC
(1.8.1.2)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

THEORETICAL ANALYSIS OF THE MOTIONS OF AN AIRCRAFT STABILIZED IN ROLL BY A DISPLACEMENT-RESPONSE, FLICKER-TYPE AUTOMATIC PILOT. Howard J. Curfman, Jr. and William N. Gardner. July 7, 1948. 33p. diagrs., tab. (NACA RM L8D19) (Declassified from Restricted, 12/11/53)

Dynamic Static Stability (Cont.)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

EFFECTS OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF A TRIANGULAR-WING MODEL. Byron M. Jaquet and Jack D. Brewer. June 29, 1949. 60p. diagrs., photos., 2 tabs. (NACA RM L9E18) (Declassified from Restricted, 12/14/53)

A THEORETICAL ANALYSIS OF THE EFFECTS OF FUEL MOTION ON AIRPLANE DYNAMICS. Albert A. Schy. 1952. ii, 22p. diagrs., 2 tabs. (NACA Rept. 1080. Formerly TN 2280)

TECHNIQUES FOR CALCULATING PARAMETERS OF NONLINEAR DYNAMIC SYSTEMS FROM RESPONSE DATA. Benjamin R. Briggs and Arthur L. Jones. July 1953. ii, 67p. diagrs., 4 tabs. (NACA TN 2977)

A SIMPLE MECHANICAL ANALOGUE FOR STUDYING THE DYNAMIC STABILITY OF AIRCRAFT HAVING NONLINEAR MOMENT CHARACTERISTICS. Thomas N. Canning. February 1954. 18p. diagrs. (NACA TN 3125)

A METHOD FOR MEASURING THE PRODUCT OF INERTIA AND THE INCLINATION OF THE PRINCIPAL LONGITUDINAL AXIS OF INERTIA OF AN AIRPLANE. Robert W. Boucher, Drexel A. Rich, Harold L. Crane and Cloyce E. Matheny. April 1954. 39p. diagrs., photos., 6 tabs. (NACA TN 3084)

Longitudinal
(1.8.1.2.1)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

THE EFFECT OF ACCELERATING A HYPOTHETICAL AIRCRAFT THROUGH THE TRANSONIC RANGE WITH CONTROLS FIXED. Howard F. Matthews. April 4, 1950. 30p. diagrs., tab. (NACA RM A9J26) (Declassified from Restricted, 12/14/53)

LOW-SPEED PITCHING DERIVATIVES OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Alex Goodman and Byron M. Jaquet. April 17, 1950. 25p. diagrs., photos., 2 tabs. (NACA RM L50C02) (Declassified from Restricted, 12/11/53)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

THEORETICAL AND ANALOG STUDIES OF THE EFFECTS OF NONLINEAR STABILITY DERIVATIVES ON THE LONGITUDINAL MOTIONS OF AN AIRCRAFT IN RESPONSE TO STEP CONTROL DEFLECTIONS AND TO THE INFLUENCE OF PROPORTIONAL AUTOMATIC CONTROL. Howard J. Curfman, Jr. February 23, 1951. 55p. diagrs., photos. (NACA RM L50L11) (Declassified from Restricted, 12/11/53)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

EXPERIMENTAL DETERMINATION OF THE EFFECT OF HORIZONTAL-TAIL SIZE, TAIL LENGTH, AND VERTICAL LOCATION ON LOW-SPEED STATIC LONGITUDINAL STABILITY AND DAMPING IN PITCH OF A MODEL HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Jacob H. Lichtenstein. 1952. ii, 22p. diagrs., photos., 3 tabs. (NACA Rept. 1096. Formerly TN 2381; TN 2382)

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SOME LOW-SPEED STUDIES OF THE EFFECTS OF WING LOCATION ON WING-DEFORMATION-BODY-FREEDOM FLUTTER. E. Widmayer, Jr. November 1952. 21p. diagrs., 3 tabs. (NACA RM L52I24)

ESTIMATION OF THE MAXIMUM ANGLE OF SIDESLIP FOR DETERMINATION OF VERTICAL-TAIL LOADS IN ROLLING MANEUVERS. Ralph W. Stone, Jr. 1953. ii, 12p. diagrs., 5 tabs. (NACA Rept. 1136. Formerly TN 2633)

GUST-TUNNEL INVESTIGATION TO DETERMINE EFFECTS OF CENTER-OF-GRAVITY POSITION ON THE GUST LOADS OF A DELTA-WING MODEL WITH LEADING EDGE SWEPT BACK 60°. Thomas D. Reisert and Domenic J. Maglieri. June 1953. 13p. diagrs., photo., 2 tabs. (NACA RM L53A30)

APPLICATION OF SEVERAL METHODS FOR DETERMINING TRANSFER FUNCTIONS AND FREQUENCY RESPONSE OF AIRCRAFT FROM FLIGHT DATA. John M. Eggleston and Charles W. Mathews. September 1953. 74p. diagrs., 2 tabs. (NACA TN 2997)

Longitudinal Dynamic Stability (Cont.)

A METHOD OF DERIVING FREQUENCY-RESPONSE DATA FOR MOTION OF THE CENTER OF GRAVITY FROM DATA MEASURED ON AN AIRCRAFT AT LOCATIONS OTHER THAN THE CENTER OF GRAVITY. John M. Eggleston. October 1953. 25p. diagrs. (NACA TN 3021)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

Lateral and Directional (1.8.1.2.2)

PRELIMINARY INVESTIGATION OF SPOILER LATERAL CONTROL ON A 42° SWEPTBACK WING AT TRANSONIC SPEEDS. Leslie E. Schneiter and Howard L. Ziff. August 12, 1947. 13p. diagrs. (NACA RM L7F19) (Declassified from Restricted, 12/14/53)

THEORETICAL ANALYSIS OF THE MOTIONS OF AN AIRCRAFT STABILIZED IN ROLL BY A DISPLACEMENT-RESPONSE, FLICKER-TYPE AUTOMATIC PILOT. Howard J. Curfman, Jr. and William N. Gardner. July 7, 1948. 33p. diagrs., tab. (NACA RM L8D19) (Declassified from Restricted, 12/11/53)

LANGLEY FREE-FLIGHT-TUNNEL INVESTIGATION OF THE AUTOMATIC LATERAL STABILITY CHARACTERISTICS OF A MODEL EQUIPPED WITH A GYRO STABILIZING UNIT THAT PROVIDED EITHER FLICKER-TYPE OR HUNTING CONTROL. Robert O. Schade. January 11, 1949. 39p. diagrs., photos., 2 tabs. (NACA RM L8K04) (Declassified from Restricted, 12/7/53)

EFFECT OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Alex Goodman. June 19, 1950. 35p. diagrs., photos., 2 tabs. (NACA RM L50E12a) (Declassified from Restricted, 12/11/53)

ABILITY OF PILOTS TO CONTROL SIMULATED SHORT-PERIOD YAWING OSCILLATIONS. William H. Phillips and Donald C. Cheatham. November 13, 1950. 23p. diagrs., photos., tab. (NACA RM L50D06) (Declassified from Restricted, 12/11/53)

AN INVESTIGATION OF THE EFFECT OF VERTICAL-FIN LOCATION AND AREA ON LOW-SPEED LATERAL STABILITY DERIVATIVES OF A SEMITAILLESS AIRPLANE MODEL. Lewis R. Fisher and William H. Michael, Jr. March 7, 1951. 41p. diagrs., photos. (NACA RM L51A10) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF SYMMETRICAL DEFLECTION OF HALF-DELTA TIP CONTROLS ON THE DAMPING IN ROLL AND YAWING MOMENT DUE TO ROLLING OF A TRIANGULAR-WING MODEL. Walter D. Wolhart. April 6, 1951. 17p. diagrs., photos. (NACA RM L51B09) (Declassified from Restricted, 12/11/53)

SUMMARY OF METHODS FOR CALCULATING DYNAMIC LATERAL STABILITY AND RESPONSE AND FOR ESTIMATING LATERAL STABILITY DERIVATIVES. John P. Campbell and Marion O. McKinney. 1952. ii, 40p. diagrs., 2 tabs. (NACA Rept. 1098. Formerly TN 2409)

A STUDY OF THE CHARACTERISTICS OF HUMAN-PILOT CONTROL RESPONSE TO SIMULATED AIRCRAFT LATERAL MOTIONS. Donald C. Cheatham. May 1952. 39p. diagrs., photos., tab. (NACA RM L52C17)

SOME EFFECTS OF FREQUENCY ON THE CONTRIBUTION OF A VERTICAL TAIL TO THE FREE AERODYNAMIC DAMPING OF A MODEL OSCILLATING IN YAW. John D. Bird, Lewis R. Fisher and Sadie M. Hubbard. 1953. ii, 17p. diagrs., photo. (NACA Rept. 1130. Formerly TN 2657)

ESTIMATION OF THE MAXIMUM ANGLE OF SIDESLIP FOR DETERMINATION OF VERTICAL-TAIL LOADS IN ROLLING MANEUVERS. Ralph W. Stone, Jr. 1953. ii, 12p. diagrs., 5 tabs. (NACA Rept. 1136. Formerly TN 2633)

ESTIMATION OF FORCES AND MOMENTS DUE TO ROLLING FOR SEVERAL SLENDER-TAIL CONFIGURATIONS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Frank S. Malvestuto, Jr. July 1953. 71p. diagrs. (NACA TN 2955)

GRAPHICAL SOLUTION OF SOME AUTOMATIC-CONTROL PROBLEMS INVOLVING SATURATION EFFECTS WITH APPLICATION TO YAW DAMPERS FOR AIRCRAFT. William H. Phillips. October 1953. 41p. diagrs. (NACA TN 3034)

A PRELIMINARY STUDY OF THE PROBLEM OF DESIGNING HIGH-SPEED AIRPLANES WITH SATISFACTORY INHERENT DAMPING OF THE DUTCH ROLL OSCILLATION. John P. Campbell and Marion O. McKinney, Jr. October 1953. 40p. diagrs., 4 tabs. (NACA TN 3035)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

SOME EFFECTS OF ASPECT RATIO AND TAIL LENGTH ON THE CONTRIBUTION OF A VERTICAL TAIL TO UNSTEADY LATERAL DAMPING AND DIRECTIONAL STABILITY OF A MODEL OSCILLATING CONTINUOUSLY IN YAW. Lewis R. Fisher. January 1954. 49p. diagrs., photos., 6 tabs. (NACA TN 3121)

A METHOD FOR ESTIMATING VARIATIONS IN THE ROOTS OF THE LATERAL-STABILITY QUARTIC DUE TO CHANGES IN MASS AND AERODYNAMIC PARAMETERS OF AN AIRPLANE. Ordway B. Gates, Jr. and C. H. Woodling. January 1954. 66p. diagrs., 4 tabs. (NACA TN 3134)

Lateral and Directional Dynamic Stability (Cont.)

INVESTIGATION OF MUTUAL INTERFERENCE EFFECTS OF SEVERAL VERTICAL-TAIL-FUSELAGE CONFIGURATIONS IN SIDESLIP. William H. Michael, Jr. January 1954. 35p. diagrs., photos., 3 tabs. (NACA TN 3135)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

DETERMINATION OF LATERAL-STABILITY DERIVATIVES AND TRANSFER-FUNCTION COEFFICIENTS FROM FREQUENCY-RESPONSE DATA FOR LATERAL MOTIONS. James J. Donegan, Samuel W. Robinson, Jr. and Ordway B. Gates, Jr. May 1954. 61p. diagrs., 12 tabs. (NACA TN 3083)

CHARTS FOR ESTIMATING TAIL-ROTOR CONTRIBUTION TO HELICOPTER DIRECTIONAL STABILITY AND CONTROL IN LOW-SPEED FLIGHT. Kenneth B. Amer and Alfred Gessow. May 1954. 54p. diagrs., photo., 2 tabs. (NACA TN 3156)

Damping Derivatives (1.8.1.2.3)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

THEORETICAL ANALYSIS OF THE MOTIONS OF AN AIRCRAFT STABILIZED IN ROLL BY A DISPLACEMENT-RESPONSE, FLICKER-TYPE AUTOMATIC PILOT. Howard J. Curfman, Jr. and William N. Gardner. July 7, 1948. 33p. diagrs., tab. (NACA RM L8D19) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF HIGH-LIFT DEVICES ON THE LOW-SPEED STABILITY CHARACTERISTICS OF A TAPERED 37.5° SWEPTBACK WING OF ASPECT RATIO 3 IN STRAIGHT AND ROLLING FLOW. M. J. Queijo and Jacob H. Lichtenstein. November 9, 1948. 27p. diagrs., photo., tab. (NACA RM L8I03) (Declassified from Restricted, 12/14/53)

LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Byron M. Jaquet and Jack D. Brewer. March 29, 1949. 44p. diagrs., photos., tab. (NACA RM L8L29) (Declassified from Restricted, 12/14/53)

EFFECTS OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED STATIC-STABILITY AND ROLLING CHARACTERISTICS OF A TRIANGULAR-WING MODEL. Byron M. Jaquet and Jack D. Brewer. June 29, 1949. 60p. diagrs., photos., 2 tabs. (NACA RM L9E18) (Declassified from Restricted, 12/14/53)

PRELIMINARY EXPERIMENTS ON FORCES AND MOMENTS OF AN OSCILLATING WING AT HIGH-SUBSONIC SPEEDS. S. A. Clevenson and E. Widmayer, Jr. February 20, 1950. 28p. diagrs., tab. (NACA RM L9K28a) (Declassified from Restricted, 12/14/53)

LOW-SPEED PITCHING DERIVATIVES OF LOW-ASPECT-RATIO WINGS OF TRIANGULAR AND MODIFIED TRIANGULAR PLAN FORMS. Alex Goodman and Byron M. Jaquet. April 17, 1950. 25p. diagrs., photos., 2 tabs. (NACA RM L50C02) (Declassified from Restricted, 12/11/53)

EFFECT OF VARIOUS OUTBOARD AND CENTRAL FINS ON LOW-SPEED YAWING STABILITY DERIVATIVES OF A 60° DELTA-WING MODEL. Alex Goodman. June 19, 1950. 35p. diagrs., photos., 2 tabs. (NACA RM L50E12a) (Declassified from Restricted, 12/11/53)

THEORETICAL AND ANALOG STUDIES OF THE EFFECTS OF NONLINEAR STABILITY DERIVATIVES ON THE LONGITUDINAL MOTIONS OF AN AIRCRAFT IN RESPONSE TO STEP CONTROL DEFLECTIONS AND TO THE INFLUENCE OF PROPORTIONAL AUTOMATIC CONTROL. Howard J. Curfman, Jr. February 23, 1951. 55p. diagrs., photos. (NACA RM L50L11) (Declassified from Restricted, 12/11/53)

AN INVESTIGATION OF THE EFFECT OF VERTICAL-FIN LOCATION AND AREA ON LOW-SPEED LATERAL STABILITY DERIVATIVES OF A SEMITAILLESS AIRPLANE MODEL. Lewis R. Fisher and William H. Michael, Jr. March 7, 1951. 41p. diagrs., photos. (NACA RM L51A10) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF SYMMETRICAL DEFLECTION OF HALF-DELTA TIP CONTROLS ON THE DAMPING IN ROLL AND YAWING MOMENT DUE TO ROLLING OF A TRIANGULAR-WING MODEL. Walter D. Wolhart. April 6, 1951. 17p. diagrs., photos. (NACA RM L51B09) (Declassified from Restricted, 12/11/53)

CALCULATED AERODYNAMIC LOADINGS OF M, W, AND Λ WINGS IN INCOMPRESSIBLE FLOW. Franklin W. Diederich and W. Owen Latham. August 30, 1951. 58p. diagrs., tab. (NACA RM L51E29) (Declassified from Confidential, 3/10/54)

METHOD FOR CALCULATING LIFT DISTRIBUTIONS FOR UNSWEPT WINGS WITH FLAPS OR AILERONS BY USE OF NONLINEAR SECTION LIFT DATA. James C. Sivells and Gertrude C. Westrick. 1952. ii, 25p. diagrs., 13 tabs. (NACA Rept. 1090. Formerly TN 2283)

EXPERIMENTAL DETERMINATION OF THE EFFECT OF HORIZONTAL-TAIL SIZE, TAIL LENGTH, AND VERTICAL LOCATION ON LOW-SPEED STATIC LONGITUDINAL STABILITY AND DAMPING IN PITCH OF A MODEL HAVING 45° SWEPTBACK WING AND TAIL SURFACES. Jacob H. Lichtenstein. 1952. ii, 22p. diagrs., photos., 3 tabs. (NACA Rept. 1096. Formerly TN 2381; TN 2382)

Damping Derivatives - Stability (Cont.)

SUMMARY OF METHODS FOR CALCULATING DYNAMIC LATERAL STABILITY AND RESPONSE AND FOR ESTIMATING LATERAL STABILITY DERIVATIVES. John P. Campbell and Marion O. McKinney. 1952. ii, 40p. diagrs., 2 tabs. (NACA Rept. 1098. Formerly TN 2409)

SOME EFFECTS OF FREQUENCY ON THE CONTRIBUTION OF A VERTICAL TAIL TO THE FREE AERODYNAMIC DAMPING OF A MODEL OSCILLATING IN YAW. John D. Bird, Lewis R. Fisher and Sadie M. Hubbard. 1953. ii, 17p. diagrs., photo. (NACA Rept. 1130. Formerly TN 2657)

ESTIMATION OF FORCES AND MOMENTS DUE TO ROLLING FOR SEVERAL SLENDER-TAIL CONFIGURATIONS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Frank S. Malvestuto, Jr. July 1953. 71p. diagrs. (NACA TN 2955)

SUPERSONIC FLOW PAST OSCILLLATING AIRFOILS INCLUDING NONLINEAR THICKNESS EFFECTS. Milton D. Van Dyke. July 1953. 41p. diagrs. (NACA TN 2982)

SOME EFFECTS OF ASPECT RATIO AND TAIL LENGTH ON THE CONTRIBUTION OF A VERTICAL TAIL TO UNSTEADY LATERAL DAMPING AND DIRECTIONAL STABILITY OF A MODEL OSCILLATING CONTINUOUSLY IN YAW. Lewis R. Fisher. January 1954. 49p. diagrs., photos., 6 tabs. (NACA TN 3121)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

A THEORETICAL INVESTIGATION OF THE AERODYNAMICS OF WING-TAIL COMBINATIONS PERFORMING TIME-DEPENDENT MOTIONS AT SUPERSONIC SPEEDS. John C. Martin, Margaret S. Diederich and Percy J. Bobbitt. May 1954. 226p. diagrs., tab. (NACA TN 3072)

CONTROL
(1.8.2)

ESTIMATION OF RANGE OF STABILITY DERIVATIVES FOR CURRENT AND FUTURE PILOTLESS AIRCRAFT. Marvin Pitkin and Herman O. Ankenbruck. October 8, 1947. 22p. diagrs., tab. (NACA RM L7E29) (Declassified from Restricted, 12/14/53)

EFFECTS OF SYMMETRIC AND ASYMMETRIC THRUST REVERSAL ON THE AERODYNAMIC CHARACTERISTICS OF A MODEL OF A TWIN-ENGINE AIRPLANE. Kenneth W. Goodson and John W. Draper. September 1953. 67p. diagrs., photo., tab. (NACA TN 2979)

LONGITUDINAL CONTROL (1.8.2.1)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A MODEL TAIL PLANE WITH MODIFIED NACA 65-010 SECTIONS AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Andrew Martin. January 12, 1948. 85p. diagrs., photo., 2 tabs. (NACA RM A7J22) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS AT TRANSONIC SPEEDS OF A SEMISPAN AIRPLANE MODEL HAVING A 45° SWEPTBACK WING AND TAIL AS OBTAINED BY THE TRANSONIC-BUMP METHOD. M. Leroy Spearman. June 30, 1948. 21p. diagrs., photo., tab. (NACA RM L8C11) (Declassified from Restricted, 12/14/53)

AERODYNAMIC STUDY OF A WING-FUSELAGE COMBINATION EMPLOYING A WING SWEPT BACK 63°. SUBSONIC MACH AND REYNOLDS NUMBER EFFECTS ON THE CHARACTERISTICS OF THE WING AND ON THE EFFECTIVENESS OF AN ELEVON. Robert M. Reynolds and Donald W. Smith. October 11, 1948. 56p. diagrs., photos., tab. (NACA RM A8D20) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF TWO ALL-MOVABLE WINGS TESTED IN THE PRESENCE OF A FUSELAGE AT A MACH NUMBER OF 1.9. D. William Conner. October 28, 1948. 20p. diagrs., photos., tab. (NACA RM L8H04) (Declassified from Restricted, 12/7/53)

INVESTIGATION OF HORN BALANCES ON A 45° SWEPTBACK HORIZONTAL TAIL SURFACE AT HIGH SUBSONIC SPEEDS. Harold S. Johnson and Robert F. Thompson. December 3, 1948. 63p. diagrs., photo., 2 tabs. (NACA RM L8J01) (Declassified from Restricted, 12/14/53)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

Longitudinal Control (Cont.)

THE EFFECT OF ACCELERATING A HYPOTHETICAL AIRCRAFT THROUGH THE TRANSONIC RANGE WITH CONTROLS FIXED. Howard F. Matthews. April 4, 1950. 30p. diagrs., tab. (NACA RM A9J26) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED LONGITUDINAL AND LATERAL CONTROL CHARACTERISTICS OF A TRIANGULAR-WING MODEL OF ASPECT RATIO 2.31 HAVING CONSTANT-CHORD CONTROL SURFACES. Walter D. Wolhart and William H. Michael, Jr. September 6, 1950. 41p. diagrs., photo., 2 tabs. (NACA RM L50G17) (Declassified from Restricted, 12/11/53)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

INVESTIGATION IN THE AMES 12-FOOT PRESSURE WIND TUNNEL OF A MODEL HORIZONTAL TAIL OF ASPECT RATIO 3 AND TAPER RATIO 0.5 HAVING THE QUARTER-CHORD LINE SWEPT BACK 45°. Carl D. Kolbe and Angelo Bandettini. June 25, 1951. 97p. diagrs., photo., 2 tabs. (NACA RM A51D02)

LOW-SPEED STATIC LONGITUDINAL STABILITY AND CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet, M. J. Queijo and Jacob H. Lichtenstein. June 27, 1951. 30p. diagrs., photos. (NACA RM L51D20a)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

FLIGHT INVESTIGATION OF A MECHANICAL FEEL DEVICE IN AN IRREVERSIBLE ELEVATOR CONTROL SYSTEM OF A LARGE AIRPLANE. B. Porter Brown, Robert G. Chilton and James B. Whitten. 1952. ii, 14p. diagrs. (NACA Rept. 1101. Formerly TN 2496)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

LATERAL CONTROL (1.8.2.2)

FREE-FLIGHT INVESTIGATION OF CONTROL EFFECTIVENESS OF FULL-SPAN 0.2-CHORD PLAIN AILERONS AT HIGH SUBSONIC, TRANSONIC, AND SUPERSONIC SPEEDS TO DETERMINE SOME EFFECTS OF SECTION THICKNESS AND WING SWEEPBACK. Carl A. Sandahl and Alfred A. Marino. May 29, 1947. 14p. diagrs., photos., tab. (NACA RM L7D02)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

PRELIMINARY INVESTIGATION OF SPOILER LATERAL CONTROL ON A 42° SWEPTBACK WING AT TRANSONIC SPEEDS. Leslie E. Schneiter and Howard L. Ziff. August 12, 1947. 13p. diagrs. (NACA RM L7F19) (Declassified from Restricted, 12/14/53)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LATERAL CONTROL CHARACTERISTICS OF PLAIN AILERONS ON A WING WITH VARIOUS AMOUNTS OF SWEEP. Arvo A. Luoma, Ralph P. Bielat and Richard T. Whitcomb. December 19, 1947. 67p. diagrs., 3 tabs. (NACA RM L7I15) (Declassified from Restricted, 10/21/53)

THEORETICAL ANALYSIS OF THE MOTIONS OF AN AIRCRAFT STABILIZED IN ROLL BY A DISPLACEMENT-RESPONSE, FLICKER-TYPE AUTOMATIC PILOT. Howard J. Curfman, Jr. and William N. Gardner. July 7, 1948. 33p. diagrs., tab. (NACA RM L8D19) (Declassified from Restricted, 12/11/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING WITH A RAKED TIP AND WITH 16.7-PERCENT-CHORD AILERONS HAVING THREE SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. July 21, 1948. 52p. diagrs., photos., 2 tabs. (NACA RM L8F29) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. I - NACA 0012-64 SECTION WITH 20-PERCENT-CHORD PLAIN AILERON AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Walter J. Krumm. September 27, 1948. 28p. diagrs., photo., 2 tabs. (NACA RM A8H12) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF TWO ALL-MOVABLE WINGS TESTED IN THE PRESENCE OF A FUSELAGE AT A MACH NUMBER OF 1.9. D. William Conner. October 28, 1948. 20p. diagrs., photos., tab. (NACA RM L8H04) (Declassified from Restricted, 12/7/53)

Lateral Control (Cont.)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEEDS OF VARIOUS PLUG-AILERON AND LIFT-FLAP CONFIGURATIONS ON A 42° SWEPTBACK SEMISPAN WING. Leslie E. Schneiter and James M. Watson. January 26, 1949. 45p. diagrs., photos. (NACA RM L8K19) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

LOW-SPEED INVESTIGATION OF AILERON AND SPOILER CHARACTERISTICS OF A WING HAVING 42° SWEEPBACK OF THE LEADING EDGE AND CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS OF APPROXIMATELY 6.0×10^6. Stanley H. Spooner and Robert L. Woods. March 10, 1949. 58p. diagrs., photos. (NACA RM L9A07) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF LOW-SPEED AILERON CONTROL CHARACTERISTICS AT A REYNOLDS NUMBER OF 6,800,000 OF A WING WITH LEADING EDGE SWEPT BACK 42° WITH AND WITHOUT HIGH-LIFT DEVICES. Thomas V. Bollech and George L. Pratt. July 19, 1949. 31p. diagrs., photo. (NACA RM L9E24) (Declassified from Restricted, 12/7/53)

LATERAL-CONTROL INVESTIGATION AT A REYNOLDS NUMBER OF 5,300,000 OF A WING OF ASPECT RATIO 5.8 SWEPTFORWARD 32° AT THE LEADING EDGE. Robert R. Graham. February 7, 1950. 44p. diagrs., photo. (NACA RM L9H18) (Declassified from Restricted, 12/14/53)

THE EFFECT OF AILERON SPAN AND SPANWISE LOCATION ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF AN UNTAPERED WING OF ASPECT RATIO 2.09 AND 45° SWEEPBACK. Rodger L. Naeseth and William M. O'Hare. February 10, 1950. 20p. diagrs. (NACA RM L9L09a) (Declassified from Restricted, 12/14/53)

EFFECTS OF PLAIN AND STEP SPOILER LOCATION AND PROJECTION ON THE LATERAL CONTROL CHARACTERISTICS OF A PLAIN AND FLAPPED 42° SWEPTBACK WING AT A REYNOLDS NUMBER OF 6.8×10^6. Thomas V. Bollech and George L. Pratt. February 14, 1950. 43p. diagrs., photos. (NACA RM L9L20a) (Declassified from Restricted, 12/7/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. II - MODIFIED NACA 0012-64 SECTION WITH A 26.6-PERCENT-CHORD, PLAIN, TRAILING-EDGE AILERON; WING UNSWEPT AND SWEPT BACK 45°. Walter J. Krumm and Joseph L. Anderson. March 15, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A9L27) (Declassified from Restricted, 12/14/53)

LOW-SPEED LATERAL STABILITY AND AILERON-EFFECTIVENESS CHARACTERISTICS AT A REYNOLDS NUMBER OF 3.5×10^6 OF A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. Roy H. Lange and Huel C. McLemore. July 6, 1950. 44p. diagrs., photos. (NACA RM L50D14) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED LONGITUDINAL AND LATERAL CONTROL CHARACTERISTICS OF A TRIANGULAR-WING MODEL OF ASPECT RATIO 2.31 HAVING CONSTANT-CHORD CONTROL SURFACES. Walter D. Wolhart and William H. Michael, Jr. September 6, 1950. 41p. diagrs., photo., 2 tabs. (NACA RM L50G17) (Declassified from Restricted, 12/11/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. III - SECTION CHARACTERISTICS, FENCE STUDIES, AND TABULATED PRESSURE COEFFICIENTS WITH MODIFIED NACA 0012-64 SECTION, 26.6-PERCENT-CHORD, PLAIN AILERON, 0° AND 45° SWEEPBACK. Walter J. Krumm and Joseph W. Cleary. November 22, 1950. 79p. diagrs., photos., 4 tabs. (NACA RM A50H17) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION AT LOW SPEED OF THE EFFECTS OF SYMMETRICAL DEFLECTION OF HALF-DELTA TIP CONTROLS ON THE DAMPING IN ROLL AND YAWING MOMENT DUE TO ROLLING OF A TRIANGULAR-WING MODEL. Walter D. Wolhart. April 6, 1951. 17p. diagrs., photos. (NACA RM L51B09) (Declassified from Restricted, 12/11/53)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

CALCULATED AERODYNAMIC LOADINGS OF M, W, AND Λ WINGS IN INCOMPRESSIBLE FLOW. Franklin W. Diederich and W. Owen Latham. August 30, 1951. 58p. diagrs., tab. (NACA RM L51E29) (Declassified from Confidential, 3/10/54)

INVESTIGATION OF LOW-SPEED LATERAL CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A 20-PERCENT-CHORD PLAIN AILERON ON A 47.7° SWEPTBACK WING OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0×10^6. William M. Hadaway and Reino J. Salmi. October 1951. 31p. diagrs. (NACA RM L51F22)

Lateral Control (Cont.)

LOW-SPEED WIND-TUNNEL INVESTIGATION OF LATERAL CONTROL CHARACTERISTICS OF A 60° TRIANGULAR-WING MODEL HAVING HALF-DELTA TIP CONTROLS. Byron M. Jaquet and M. J. Queijo. November 27, 1951. 50p. diagrs., photos. (NACA RM L51I10)

METHOD FOR CALCULATING LIFT DISTRIBUTIONS FOR UNSWEPT WINGS WITH FLAPS OR AILERONS BY USE OF NONLINEAR SECTION LIFT DATA. James C. Sivells and Gertrude C. Westrick. 1952. ii, 25p. diagrs., 13 tabs. (NACA Rept. 1090. Formerly TN 2283)

EFFECT OF ASPECT RATIO ON THE LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF UNTAPERED LOW-ASPECT-RATIO WINGS EQUIPPED WITH FLAP AND WITH RETRACTABLE AILERONS. Jack Fischel, Rodger L. Naeseth, John R. Hagerman and William M. O'Hare. 1952. ii, 47p. diagrs., 3 tabs. (NACA Rept. 1091. Formerly TN 2347; TN 2348)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

ESTIMATION OF THE MAXIMUM ANGLE OF SIDESLIP FOR DETERMINATION OF VERTICAL-TAIL LOADS IN ROLLING MANEUVERS. Ralph W. Stone, Jr. 1953. ii, 12p. diagrs., 5 tabs. (NACA Rept. 1136. Formerly TN 2633)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LATERAL CONTROL OF SWEPT AND UNSWEPT WINGS. Kenneth A. Foss and Franklin W. Diederich. 1953. iii, 25p. diagrs., 2 tabs. (NACA Rept. 1139. Formerly TN 2747)

LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF AN UNSWEPT WING WITH HEXAGONAL AIRFOIL SECTIONS AND ASPECT RATIO 4.0 AT A REYNOLDS NUMBER OF 6.2×10^6. William M. Hadaway. March 1953. 24p. diagrs., photo. (NACA RM L53A29)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

ROLLING EFFECTIVENESS AND AILERON REVERSAL OF RECTANGULAR WINGS AT SUPERSONIC SPEEDS. John M. Hedgepeth and Robert J. Kell. April 1954. 79p. diagrs., 4 tabs. (NACA TN 3067)

CHARTS FOR ESTIMATING TAIL-ROTOR CONTRIBUTION TO HELICOPTER DIRECTIONAL STABILITY AND CONTROL IN LOW-SPEED FLIGHT. Kenneth B. Amer and Alfred Gessow. May 1954. 54p. diagrs., photo., 2 tabs. (NACA TN 3156)

DIRECTIONAL CONTROL (1.8.2.3)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A MODEL TAIL PLANE WITH MODIFIED NACA 65-010 SECTIONS AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Andrew Martin. January 12, 1948. 85p. diagrs., photo., 2 tabs. (NACA RM A7J22) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED STABILITY AND CONTROL CHARACTERISTICS OF A MODEL WITH A SWEPTBACK VEE TAIL AND A SWEPTBACK WING. Edward C. Polhamus. May 25, 1948. 31p. diagrs. (NACA RM L7K13) (Declassified from Restricted, 12/14/53)

ABILITY OF PILOTS TO CONTROL SIMULATED SHORT-PERIOD YAWING OSCILLATIONS. William H. Phillips and Donald C. Cheatham. November 13, 1950. 23p. diagrs., photos., tab. (NACA RM L50D06) (Declassified from Restricted, 12/11/53)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

A STUDY OF THE CHARACTERISTICS OF HUMAN-PILOT CONTROL RESPONSE TO SIMULATED AIRCRAFT LATERAL MOTIONS. Donald C. Cheatham. May 1952. 39p. diagrs., photos., tab. (NACA RM L52C17)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

AIR BRAKES (1.8.2.4)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

HINGE MOMENTS (1.8.2.5)

TESTS OF A HORIZONTAL-TAIL MODEL THROUGH THE TRANSONIC SPEED RANGE BY THE NACA WING-FLOW METHOD. Richard E. Adams and Norman S. Silsby. April 11, 1947. 24p. diagrs., photos., tab. (NACA RM L7C25a)

Hinge Moments - Control (Cont.)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

MEASUREMENTS OF AERODYNAMIC CHARACTERISTICS OF A 35° SWEPTBACK NACA 65-009 AIRFOIL MODEL WITH 1/4-CHORD PLAIN FLAP BY THE NACA WING-FLOW METHOD. Harold I. Johnson. August 5, 1947. 72p. diagrs., photos. (NACA RM L7F13) (Declassified from Restricted, 12/14/53)

HIGH-SPEED WIND-TUNNEL INVESTIGATION OF THE LATERAL CONTROL CHARACTERISTICS OF PLAIN AILERONS ON A WING WITH VARIOUS AMOUNTS OF SWEEP. Arvo A. Luoma, Ralph P. Bielat and Richard T. Whitcomb. December 19, 1947. 67p. diagrs., 3 tabs. (NACA RM L7I15) (Declassified from Restricted, 10/21/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A MODEL TAIL PLANE WITH MODIFIED NACA 65-010 SECTIONS AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Andrew Martin. January 12, 1948. 85p. diagrs., photo., 2 tabs. (NACA RM A7J22) (Declassified from Restricted, 12/14/53)

A SUMMARY AND ANALYSIS OF WIND-TUNNEL DATA ON THE LIFT AND HINGE-MOMENT CHARACTERISTICS OF CONTROL SURFACES UP TO A MACH NUMBER OF 0.90. John A. Axelson. April 30, 1948. 43p. diagrs., tab. (NACA RM A7L02) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING WITH A RAKED TIP AND WITH 16.7-PERCENT-CHORD AILERONS HAVING THREE SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. July 21, 1948. 52p. diagrs., photos., 2 tabs. (NACA RM L8F29) (Declassified from Restricted, 12/14/53)

TESTS OF A TRIANGULAR WING OF ASPECT RATIO 2 IN THE AMES 12-FOOT PRESSURE WIND TUNNEL. III - THE EFFECTIVENESS AND HINGE MOMENTS OF A SKEWED WING-TIP FLAP. Carl D. Kolbe and Bruce E. Tinling. September 21, 1948. 30p. diagrs., photo. (NACA RM A8E21) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. I - NACA 0012-64 SECTION WITH 20-PERCENT-CHORD PLAIN AILERON AND 0° AND 45° SWEEPBACK. Joseph L. Anderson and Walter J. Krumm. September 27, 1948. 28p. diagrs., photo., 2 tabs. (NACA RM A8H12) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION AT LOW SPEED OF A 51.3° SWEPTBACK SEMISPAN WING EQUIPPED WITH 16.7-PERCENT-CHORD PLAIN FLAPS AND AILERONS HAVING VARIOUS SPANS AND THREE TRAILING-EDGE ANGLES. Jack Fischel and Leslie E. Schneiter. November 12, 1948. 81p. diagrs., photo., 2 tabs. (NACA RM L8H20) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF HORN BALANCES ON A 45° SWEPTBACK HORIZONTAL TAIL SURFACE AT HIGH SUBSONIC SPEEDS. Harold S. Johnson and Robert F. Thompson. December 3, 1948. 63p. diagrs., photo., 2 tabs. (NACA RM L8J01) (Declassified from Restricted, 12/14/53)

ANALYTICAL CONSIDERATIONS REGARDING A CONTROL-SURFACE BALANCE ARRANGEMENT FOR SUBSONIC AND SUPERSONIC FLIGHT. Thomas A. Toll and Glenn H. Adair. January 10, 1949. 20p. diagrs. (NACA RM L8L01) (Declassified from Restricted, 12/14/53)

LATERAL-CONTROL INVESTIGATION ON A 37° SWEPTBACK WING OF ASPECT RATIO 6 AT A REYNOLDS NUMBER OF 6,800,000. Robert R. Graham and William Koven. January 27, 1949. 58p. diagrs., photo. (NACA RM L8K12) (Declassified from Restricted, 12/14/53)

LOW-SPEED INVESTIGATION OF AILERON AND SPOILER CHARACTERISTICS OF A WING HAVING 42° SWEEPBACK OF THE LEADING EDGE AND CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS OF APPROXIMATELY 6.0×10^6. Stanley H. Spooner and Robert L. Woods. March 10, 1949. 58p. diagrs., photos. (NACA RM L9A07) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF LOW-SPEED AILERON CONTROL CHARACTERISTICS AT A REYNOLDS NUMBER OF 6,800,000 OF A WING WITH LEADING EDGE SWEPT BACK 42° WITH AND WITHOUT HIGH-LIFT DEVICES. Thomas V. Bollech and George L. Pratt. July 19, 1949. 31p. diagrs., photo. (NACA RM L9E24) (Declassified from Restricted, 12/7/53)

LATERAL-CONTROL INVESTIGATION AT A REYNOLDS NUMBER OF 5,300,000 OF A WING OF ASPECT RATIO 5.8 SWEPTFORWARD 32° AT THE LEADING EDGE. Robert R. Graham. February 7, 1950. 44p. diagrs., photo. (NACA RM L9H18) (Declassified from Restricted, 12/14/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. II - MODIFIED NACA 0012-64 SECTION WITH A 26.6-PERCENT-CHORD, PLAIN, TRAILING-EDGE AILERON; WING UNSWEPT AND SWEPT BACK 45°. Walter J. Krumm and Joseph L. Anderson. March 15, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A9L27) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF THE LOW-SPEED LONGITUDINAL AND LATERAL CONTROL CHARACTERISTICS OF A TRIANGULAR-WING MODEL OF ASPECT RATIO 2.31 HAVING CONSTANT-CHORD CONTROL SURFACES. Walter D. Wolhart and William H. Michael, Jr. September 6, 1950. 41p. diagrs., photo., 2 tabs. (NACA RM L50G17) (Declassified from Restricted, 12/11/53)

Hinge Moments - Control (Cont.)

THE EFFECTS OF INCREASING THE LEADING-EDGE RADIUS AND ADDING FORWARD CAMBER ON THE AERODYNAMIC CHARACTERISTICS OF A WING WITH 35° OF SWEEPBACK. Fred A. Demele and Fred B. Sutton. February 9, 1951. 27p. diagrs., photo., tab. (NACA RM A50K28a) (Declassified from Restricted, 12/11/53)

INVESTIGATION AT LOW SPEED OF THE EFFECTIVENESS AND HINGE MOMENTS OF A CONSTANT-CHORD AILAVATOR ON A LARGE-SCALE TRIANGULAR WING WITH SECTION MODIFICATION. John G. Hawes and Ralph W. May, Jr. April 24, 1951. 47p. diagrs., photos., tab. (NACA RM L51A26) (Declassified from Restricted, 12/11/53)

INVESTIGATION IN THE AMES 12-FOOT PRESSURE WIND TUNNEL OF A MODEL HORIZONTAL TAIL OF ASPECT RATIO 3 AND TAPER RATIO 0.5 HAVING THE QUARTER-CHORD LINE SWEPT BACK 45°. Carl D. Kolbe and Angelo Bandettini. June 25, 1951. 97p. diagrs., photo., 2 tabs. (NACA RM A51D02)

SUMMARY OF RESULTS OF A WIND-TUNNEL INVESTIGATION OF NINE RELATED HORIZONTAL TAILS. Jules B. Dods, Jr. and Bruce E. Tinling. October 1951. 105p. diagrs., photos., 2 tabs. (NACA RM A51G31a)

INVESTIGATION OF LOW-SPEED LATERAL CONTROL AND HINGE-MOMENT CHARACTERISTICS OF A 20-PERCENT-CHORD PLAIN AILERON ON A 47.7° SWEPTBACK WING OF ASPECT RATIO 5.1 AT A REYNOLDS NUMBER OF 6.0 x 10^6. William M. Hadaway and Reino J. Salmi. October 1951. 31p. diagrs. (NACA RM L51F22)

LOW-SPEED LATERAL CONTROL CHARACTERISTICS OF AN UNSWEPT WING WITH HEXAGONAL AIRFOIL SECTIONS AND ASPECT RATIO 4.0 AT A REYNOLDS NUMBER OF 6.2 x 10^6. William M. Hadaway. March 1953. 24p. diagrs., photo. (NACA RM L53A29)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

AUTOMATIC CONTROL (1.8.2.6)

THEORETICAL ANALYSIS OF THE MOTIONS OF AN AIRCRAFT STABILIZED IN ROLL BY A DISPLACEMENT-RESPONSE, FLICKER-TYPE AUTOMATIC PILOT. Howard J. Curfman, Jr. and William N. Gardner. July 7, 1948. 33p. diagrs., tab. (NACA RM L8D19) (Declassified from Restricted, 12/11/53)

LANGLEY FREE-FLIGHT-TUNNEL INVESTIGATION OF THE AUTOMATIC LATERAL STABILITY CHARACTERISTICS OF A MODEL EQUIPPED WITH A GYRO STABILIZING UNIT THAT PROVIDED EITHER FLICKER-TYPE OR HUNTING CONTROL. Robert O. Schade. January 11, 1949. 39p. diagrs., photos., 2 tabs. (NACA RM L8K04) (Declassified from Restricted, 12/7/53)

THEORETICAL AND ANALOG STUDIES OF THE EFFECTS OF NONLINEAR STABILITY DERIVATIVES ON THE LONGITUDINAL MOTIONS OF AN AIRCRAFT IN RESPONSE TO STEP CONTROL DEFLECTIONS AND TO THE INFLUENCE OF PROPORTIONAL AUTOMATIC CONTROL. Howard J. Curfman, Jr. February 23, 1951. 55p. diagrs., photos. (NACA RM L50L11) (Declassified from Restricted, 12/11/53)

TECHNIQUES FOR CALCULATING PARAMETERS OF NONLINEAR DYNAMIC SYSTEMS FROM RESPONSE DATA. Benjamin R. Briggs and Arthur L. Jones. July 1953. ii, 67p. diagrs., 4 tabs. (NACA TN 2977)

A FLIGHT INVESTIGATION OF SOME EFFECTS OF AUTOMATIC CONTROL ON GUST LOADS. Chester B. Payne. July 1953. 18p. diagrs., tab. (NACA RM L53E14a)

GRAPHICAL SOLUTION OF SOME AUTOMATIC-CONTROL PROBLEMS INVOLVING SATURATION EFFECTS WITH APPLICATION TO YAW DAMPERS FOR AIRCRAFT. William H. Phillips. October 1953. 41p. diagrs. (NACA TN 3034)

SPINNING (1.8.3)

A FLIGHT INVESTIGATION OF THE EFFECT OF STEADY ROLLING ON THE NATURAL FREQUENCIES OF A BODY-TAIL COMBINATION. Norman R. Bergrun and Paul A. Nickel. August 1953. 27p. diagrs., photo., 2 tabs. (NACA TN 2985)

COMPARISON OF MODEL AND FULL-SCALE SPIN RECOVERIES OBTAINED BY USE OF ROCKETS. Sanger M. Burk, Jr. and Frederick M. Healy. February 1954. 63p. diagrs., photos., 5 tabs. (NACA TN 3068)

STALLING (1.8.4)

AERODYNAMIC CHARACTERISTICS OF A 42° SWEPT-BACK WING WITH ASPECT RATIO 4 AND NACA 64_1-112 AIRFOIL SECTIONS AT REYNOLDS NUMBERS FROM 1,700,000 TO 9,500,000. Robert H. Neely and D. William Conner. May 23, 1947. 39p. diagrs., photos. (NACA RM L7D14) (Declassified from Restricted, 12/14/53)

Stalling (Cont.)

EFFECTS OF A FUSELAGE AND VARIOUS HIGH-LIFT AND STALL-CONTROL FLAPS ON AERODYNAMIC CHARACTERISTICS IN PITCH OF AN NACA 64-SERIES 40° SWEPT-BACK WING. D. William Conner and Robert H. Neely. May 26, 1947. 40p. diagrs., photos., tab. (NACA RM L6L27) (Declassified from Restricted, 12/14/53)

AERODYNAMIC CHARACTERISTICS OF A 45° SWEPT-BACK WING WITH ASPECT RATIO OF 3.5 AND NACA 2S-50(05)-50(05) AIRFOIL SECTIONS. Anthony J. Proterra. August 4, 1947. 21p. diagrs., photo. (NACA RM L7C11) (Declassified from Restricted, 12/14/53)

LOW-SPEED CHARACTERISTICS IN PITCH OF A 42° SWEPTBACK WING WITH ASPECT RATIO 3.9 AND CIRCULAR-ARC AIRFOIL SECTIONS. Robert H. Neely and William Koven. November 13, 1947. 42p. diagrs., photos., 2 tabs. (NACA RM L7E23) (Declassified from Restricted, 12/14/53)

A LIMIT PRESSURE COEFFICIENT AND AN ESTIMATION OF LIMIT FORCES ON AIRFOILS AT SUPERSONIC SPEEDS. John P. Mayer. August 23, 1948. 18p. diagrs. (NACA RM L8F23) (Declassified from Confidential, 1/8/54)

LOW-SPEED PRESSURE DISTRIBUTIONS OVER THE DROOPED-NOSE FLAP OF A 42° SWEPTBACK WING WITH CIRCULAR-ARC AIRFOIL SECTIONS AT A REYNOLDS NUMBER OF 5.3 x 10^6. Stanley H. Spooner and Robert L. Woods. September 23, 1948. 28p. diagrs., tab. (NACA RM L8F16) (Declassified from Restricted, 12/14/53)

FULL-SCALE INVESTIGATION OF AN EQUILATERAL TRIANGULAR WING HAVING 10-PERCENT-THICK BICONVEX AIRFOIL SECTIONS. Edward F. Whittle, Jr. and J. Calvin Lovell. September 30, 1948. 32p. diagrs., photos. (NACA RM L8G05) (Declassified from Restricted, 12/14/53)

EFFECT OF HIGH-LIFT DEVICES ON THE LONGITUDINAL AND LATERAL CHARACTERISTICS OF A 45° SWEPTBACK WING WITH SYMMETRICAL CIRCULAR-ARC SECTIONS. Eugene R. Guryansky and Stanley Lipson. October 1, 1948. 45p. diagrs., photo. (NACA RM L8D06) (Declassified from Restricted, 12/14/53)

LOW-SPEED INVESTIGATION OF AILERON AND SPOILER CHARACTERISTICS OF A WING HAVING 42° SWEEPBACK OF THE LEADING EDGE AND CIRCULAR-ARC AIRFOIL SECTIONS AT REYNOLDS NUMBERS OF APPROXIMATELY 6.0 x 10^6. Stanley H. Spooner and Robert L. Woods. March 10, 1949. 58p. diagrs., photos. (NACA RM L9A07) (Declassified from Restricted, 12/14/53)

MAXIMUM LIFT AND LONGITUDINAL STABILITY CHARACTERISTICS AT REYNOLDS NUMBERS UP TO 7.8 x 10^6 OF A 35° SWEPTFORWARD WING EQUIPPED WITH HIGH-LIFT AND STALL-CONTROL DEVICES, FUSELAGE, AND HORIZONTAL TAIL. Albert P. Martina and Owen J. Deters. February 9, 1950. 70p. diagrs., photo., 4 tabs. (NACA RM L9H18a) (Declassified from Restricted, 12/7/53)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton. March 20, 1950. 32p. diagrs., photos., tab. (NACA RM A50A10) (Declassified from Restricted, 12/11/53)

MAXIMUM-LIFT CHARACTERISTICS OF A WING WITH THE LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP AT REYNOLDS NUMBERS FROM 2.4 x 10^6 TO 6.0 x 10^6. Roy H. Lange. July 6, 1950. 62p. diagrs., photos. (NACA RM L50A04a) (Declassified from Restricted, 12/11/53)

LOW-SPEED PRESSURE-DISTRIBUTION MEASUREMENTS AT A REYNOLDS NUMBER OF 3.5 x 10^6 ON A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. U. Reed Barnett, Jr. and Roy H. Lange. July 7, 1950. 39p. diagrs., photo. (NACA RM L50A23a) (Declassified from Restricted, 12/11/53)

WIND-TUNNEL INVESTIGATION OF THE EFFECT OF CHORDWISE FENCES ON LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING. M. J. Queijo and Byron M. Jaquet. December 18, 1950. 47p. diagrs., photos. (NACA RM L50K07) (Declassified from Restricted, 12/8/53)

THE EFFECTS OF CAMBER AND TWIST ON THE AERODYNAMIC LOADING AND STALLING CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton and Joseph K. Dew. January 24, 1951. 40p. diagrs., photo., tab. (NACA RM A50J24) (Declassified from Restricted, 12/11/53)

THE USE OF TWO-DIMENSIONAL SECTION DATA TO ESTIMATE THE LOW-SPEED WING LIFT COEFFICIENT AT WHICH SECTION STALL FIRST APPEARS ON A SWEPT WING. Ralph L. Maki. July 1951. 37p. diagrs., photo., 4 tabs. (NACA RM A51E15)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF HORIZONTAL-TAIL POSITION ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF AN AIRPLANE MODEL WITH A 35° SWEPTBACK WING EQUIPPED WITH CHORDWISE FENCES. M. J. Queijo and Walter D. Wolhart. November 1951. 28p. diagrs., photo., tab. (NACA RM L51H17)

METHOD FOR CALCULATING LIFT DISTRIBUTIONS FOR UNSWEPT WINGS WITH FLAPS OR AILERONS BY USE OF NONLINEAR SECTION LIFT DATA. James C. Sivells and Gertrude C. Westrick. 1952. ii, 25p. diagrs., 13 tabs. (NACA Rept. 1090. Formerly TN 2283)

Stalling (Cont.)

STUDIES OF THE FLOW FIELD BEHIND A LARGE SCALE 47.5° SWEPTBACK WING HAVING CIRCULAR-ARC AIRFOIL SECTIONS AND EQUIPPED WITH DROOPED-NOSE AND PLAIN FLAPS. Roy H. Lange and Marvin P. Fink. March 1952. 57p. diagrs., photos., tab. (NACA RM L51L12)

LOW-SPEED INVESTIGATION OF THE EFFECTS OF NACELLES ON THE LONGITUDINAL AERODYNAMIC CHARACTERISTICS OF A 60° SWEPTBACK DELTA-WING - FUSELAGE COMBINATION WITH NACA 65A003 AIRFOIL SECTIONS. William I. Scallion. July 1952. 21p. diagrs., photos., 3 tabs. (NACA RM L52F04)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5×10^6 TO 4.8×10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

EFFECTS OF FINITE SPAN ON THE SECTION CHARACTERISTICS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 6. Lynn W. Hunton. September 1953. 32p. diagrs. (NACA TN 3008. Formerly RM A52A10)

USE OF TWO-DIMENSIONAL DATA IN ESTIMATING LOADS ON A 45° SWEPTBACK WING WITH SLATS AND PARTIAL-SPAN FLAPS. Lynn W. Hunton and Harry A. James. November 1953. 40p. diagrs., photo., tab. (NACA TN 3040)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

FLYING QUALITIES (1.8.5)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

THE EFFECT OF ACCELERATING A HYPOTHETICAL AIRCRAFT THROUGH THE TRANSONIC RANGE WITH CONTROLS FIXED. Howard F. Matthews. April 4, 1950. 30p. diagrs., tab. (NACA RM A9J26) (Declassified from Restricted, 12/14/53)

FLIGHT INVESTIGATION OF A MECHANICAL FEEL DEVICE IN AN IRREVERSIBLE ELEVATOR CONTROL SYSTEM OF A LARGE AIRPLANE. B. Porter Brown, Robert G. Chilton and James B. Whitten. 1952. ii, 14p. diagrs. (NACA Rept. 1101. Formerly TN 2496)

INITIAL RESULTS OF INSTRUMENT-FLYING TRIALS CONDUCTED IN A SINGLE-ROTOR HELICOPTER. Almer D. Crim, John P. Reeder and James B. Whitten. 1953. ii, 7p., diagrs., photos. (NACA Rept. 1137. Formerly TN 2721)

STUDIES OF THE LATERAL-DIRECTIONAL FLYING QUALITIES OF A TANDEM HELICOPTER IN FORWARD FLIGHT. Kenneth B. Amer and Robert J. Tapscott. August 1953. 42p. diagrs., photos., tab. (NACA TN 2984)

METHOD FOR STUDYING HELICOPTER LONGITUDINAL MANEUVER STABILITY. Kenneth B. Amer. October 1953. ii, 52p. diagrs., photos., 2 tabs. (NACA TN 3022)

A PRELIMINARY STUDY OF THE PROBLEM OF DESIGNING HIGH-SPEED AIRPLANES WITH SATISFACTORY INHERENT DAMPING OF THE DUTCH ROLL OSCILLATION. John P. Campbell and Marion O. McKinney, Jr. October 1953. 40p. diagrs., 4 tabs. (NACA TN 3035)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

CHARTS FOR ESTIMATING TAIL-ROTOR CONTRIBUTION TO HELICOPTER DIRECTIONAL STABILITY AND CONTROL IN LOW-SPEED FLIGHT. Kenneth B. Amer and Alfred Gessow. May 1954. 54p. diagrs., photo., 2 tabs. (NACA TN 3156)

MASS AND GYROSCOPIC PROBLEMS (1.8.6)

ESTIMATION OF THE MAXIMUM ANGLE OF SIDESLIP FOR DETERMINATION OF VERTICAL-TAIL LOADS IN ROLLING MANEUVERS. Ralph W. Stone, Jr. 1953. ii, 12p. diagrs., 5 tabs. (NACA Rept. 1136. Formerly TN 2633)

MOMENT OF INERTIA AND DAMPING OF FLUID IN TANKS UNDERGOING PITCHING OSCILLATIONS. Edward Widmayer, Jr. and James R. Reese. June 1953. 9p. diagrs. (NACA RM L53E01a)

Mass and Gyroscopic Problems (Cont.)

A PRELIMINARY STUDY OF THE PROBLEM OF DESIGNING HIGH-SPEED AIRPLANES WITH SATISFACTORY INHERENT DAMPING OF THE DUTCH ROLL OSCILLLATION. John P. Campbell and Marion O. McKinney, Jr. October 1953. 40p. diagrs., 4 tabs. (NACA TN 3035)

A METHOD FOR MEASURING THE PRODUCT OF INERTIA AND THE INCLINATION OF THE PRINCIPAL LONGITUDINAL AXIS OF INERTIA OF AN AIRPLANE. Robert W. Boucher, Drexel A. Rich, Harold L. Crane and Cloyce E. Matheny. April 1954. 39p. diagrs., photos., 6 tabs. (NACA TN 3084)

AUTOMATIC STABILIZATION (1.8.8)

THEORETICAL AND ANALOG STUDIES OF THE EFFECTS OF NONLINEAR STABILITY DERIVATIVES ON THE LONGITUDINAL MOTIONS OF AN AIRCRAFT IN RESPONSE TO STEP CONTROL DEFLECTIONS AND TO THE INFLUENCE OF PROPORTIONAL AUTOMATIC CONTROL. Howard J. Curfman, Jr. February 23, 1951. 55p. diagrs., photos. (NACA RM L50L11) (Declassified from Restricted, 12/11/53)

GRAPHICAL SOLUTION OF SOME AUTOMATIC-CONTROL PROBLEMS INVOLVING SATURATION EFFECTS WITH APPLICATION TO YAW DAMPERS FOR AIRCRAFT. William H. Phillips. October 1953. 41p. diagrs. (NACA TN 3034)

DETERMINATION OF THE FLYING QUALITIES OF THE DOUGLAS DC-3 AIRPLANE. Arthur Assadourian and John A. Harper. December 1953. 67p. diagrs., photos., tab. (NACA TN 3088)

A METHOD FOR ESTIMATING VARIATIONS IN THE ROOTS OF THE LATERAL-STABILITY QUARTIC DUE TO CHANGES IN MASS AND AERODYNAMIC PARAMETERS OF AN AIRPLANE. Ordway B. Gates, Jr. and C. H. Woodling. January 1954. 66p. diagrs., 4 tabs. (NACA TN 3134)

Aeroelasticity
(1.9)

PRELIMINARY EXPERIMENTS ON FORCES AND MOMENTS OF AN OSCILLATING WING AT HIGH-SUBSONIC SPEEDS. S. A. Clevenson and E. Widmayer, Jr. February 20, 1950. 28p. diagrs., tab. (NACA RM L9K28a) (Declassified from Restricted, 12/14/53) 1503

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

SOME LOW-SPEED STUDIES OF THE EFFECTS OF WING LOCATION ON WING-DEFORMATION-BODY-FREEDOM FLUTTER. E. Widmayer, Jr. November 1952. 21p. diagrs., 3 tabs. (NACA RM L52I24)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LATERAL CONTROL OF SWEPT AND UNSWEPT WINGS. Kenneth A. Foss and Franklin W. Diederich. 1953. iii, 25p. diagrs., 2 tabs. (NACA Rept. 1139. Formerly TN 2747)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LOADING OF SWEPT AND UNSWEPT WINGS. Franklin W. Diederich and Kenneth A. Foss. 1953. iii, 48p. diagrs., 3 tabs. (NACA Rept. 1140. Formerly TN 2608) 1501

PRELIMINARY INVESTIGATION OF THE EFFECTS OF CASCADING ON THE OSCILLATING LIFT FORCE OF AN AIRFOIL VIBRATED IN BENDING. Donald F. Johnson and Alexander Mendelson. September 1953. 15p. diagrs., photos. (NACA RM E53F29)

ROLLING EFFECTIVENESS AND AILERON REVERSAL OF RECTANGULAR WINGS AT SUPERSONIC SPEEDS. John M. Hedgepeth and Robert J. Kell. April 1954. 79p. diagrs., 4 tabs. (NACA TN 3067)

HYDRODYNAMICS
(2)

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HYDRODYNAMIC DRAG OF 12- AND 21-PERCENT-THICK SURFACE-PIERCING STRUTS. Claude W. Coffee, Jr. and Robert E. McKann. December 1953. 28p. diagrs., photos., tab. (NACA TN 3092)

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00 AND 0.25 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen and Victor L. Vaughan, Jr. March 1954. 64p. diagrs., photos. (NACA TN 3079)

Theory
(2.1)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

AIR-WATER ANALOGY AND THE STUDY OF HYDRAULIC MODELS. (La Similitudine Aria-Acqua e lo Studio dei Modelli Idraulici). Giulio Supino. July 1953. 22p. diagrs. (NACA TM 1359. Trans. from Energia Elettrica, v. 28, no. 11, Nov. 1951).

MOTION OF A CYLINDER UNDER THE SURFACE OF A HEAVY FLUID. (Dvizhenie tsilindra pod poverkhnostyu tyazheloi zhidkosti). L. N. Sretensky. August 1953. 36p. (NACA TM 1335. Trans. from Central Aero-Hydrodynamical Institute, Transactions, Rept. 346, 1938, p. 3-27).

THE HYDRODYNAMIC CHARACTERISTICS OF MODIFIED RECTANGULAR FLAT PLATES HAVING ASPECT RATIOS OF 1.00 AND 0.25 AND OPERATING NEAR A FREE WATER SURFACE. Kenneth L. Wadlin, John A. Ramsen and Victor L. Vaughan, Jr. March 1954. 64p. diagrs., photos. (NACA TN 3079)

General Arrangement Studies
(2.2)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

THE HIGH-SPEED PLANING CHARACTERISTICS OF A RECTANGULAR FLAT PLATE OVER A WIDE RANGE OF TRIM AND WETTED LENGTH. Irving Weinstein and Walter J. Kapryan. July 1953. 29p. diagrs., photo., 2 tabs. (NACA TN 2981)

MODEL DITCHING INVESTIGATIONS OF THREE AIRPLANES EQUIPPED WITH HYDRO-SKIS. (Revised) Lloyd J. Fisher. September 1953. 8p. photos. (NACA RM L53G24a)

THE EFFECT OF VERTICAL CHINE STRIPS ON THE PLANING CHARACTERISTICS OF V-SHAPED PRISMATIC SURFACES HAVING ANGLES OF DEAD RISE OF 20° AND 40°. Walter J. Kapryan and George M. Boyd, Jr. November 1953. 38p. diagrs., photo., 2 tabs. (NACA TN 3052)

Seaplane Hull Variables

(2.3)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

LENGTH-BEAM RATIO

(2.3.1)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

THE HIGH-SPEED PLANING CHARACTERISTICS OF A RECTANGULAR FLAT PLATE OVER A WIDE RANGE OF TRIM AND WETTED LENGTH. Irving Weinstein and Walter J. Kapryan. July 1953. 29p. diagrs., photo., 2 tabs. (NACA TN 2981)

THE EFFECT OF VERTICAL CHINE STRIPS ON THE PLANING CHARACTERISTICS OF V-SHAPED PRISMATIC SURFACES HAVING ANGLES OF DEAD RISE OF 20° AND 40°. Walter J. Kapryan and George M. Boyd, Jr. November 1953. 38p. diagrs., photo., 2 tabs. (NACA TN 3052)

STATIC PROPERTIES AND RESISTANCE CHARACTERISTICS OF A FAMILY OF SEAPLANE HULLS HAVING VARYING LENGTH-BEAM RATIO. Arthur W. Carter and David R. Woodward. January 1954. 38p. diagrs., photo., 3 tabs. (NACA TN 3119)

DEAD RISE

(2.3.2)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

THE EFFECT OF VERTICAL CHINE STRIPS ON THE PLANING CHARACTERISTICS OF V-SHAPED PRISMATIC SURFACES HAVING ANGLES OF DEAD RISE OF 20° AND 40°. Walter J. Kapryan and George M. Boyd, Jr. November 1953. 38p. diagrs., photo., 2 tabs. (NACA TN 3052)

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STEPS

(2.3.3)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

CHINES

(2.3.6)

GENERALIZED THEORY, FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

THE EFFECT OF VERTICAL CHINE STRIPS ON THE PLANING CHARACTERISTICS OF V-SHAPED PRISMATIC SURFACES HAVING ANGLES OF DEAD RISE OF 20° AND 40°. Walter J. Kapryan and George M. Boyd, Jr. November 1953. 38p. diagrs., photo., 2 tabs. (NACA TN 3052)

Planing Surfaces
(2.6)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

THE HIGH-SPEED PLANING CHARACTERISTICS OF A RECTANGULAR FLAT PLATE OVER A WIDE RANGE OF TRIM AND WETTED LENGTH. Irving Weinstein and Walter J. Kapryan. July 1953. 29p. diagrs., photo., 2 tabs. (NACA TN 2981)

MODEL DITCHING INVESTIGATIONS OF THREE AIRPLANES EQUIPPED WITH HYDRO-SKIS. (Revised) Lloyd J. Fisher. September 1953. 8p. photos. (NACA RM L53G24a)

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Hydrofoils
(2.7)

MOTION OF A CYLINDER UNDER THE SURFACE OF A HEAVY FLUID. (Dvizhenie tsilindra pod poverkhnostyu tyazheloi zhidkosti). L. N. Sretensky. August 1953. 36p. (NACA TM 1335. Trans. from Central Aero-Hydrodynamical Institute, Transactions, Rept. 346, 1938, p. 3-27).

HYDRODYNAMIC DRAG OF 12- AND 21-PERCENT-THICK SURFACE-PIERCING STRUTS. Claude W. Coffee, Jr. and Robert E. McKann. December 1953. 28p. diagrs., photos., tab. (NACA TN 3092)

Ditching Characteristics
(2.9)

DITCHING TESTS WITH A 1/16-SIZE MODEL OF THE NAVY XP2V-1 AIRPLANE AT THE LANGLEY TANK NO. 2 MONORAIL. Lloyd J. Fisher and Robert P. Tarshis. May 18, 1950. 40p. diagrs., photos., tab. (NACA RM L50C23) (Declassified from Restricted, 12/8/53)

MODEL DITCHING INVESTIGATIONS OF THREE AIRPLANES EQUIPPED WITH HYDRO-SKIS. (Revised) Lloyd J. Fisher. September 1953. 8p. photos. (NACA RM L53G24a)

Stability and Control
(2.10)

LATERAL
(2.10.2)

STATIC PROPERTIES AND RESISTANCE CHARACTERISTICS OF A FAMILY OF SEAPLANE HULLS HAVING VARYING LENGTH-BEAM RATIO. Arthur W. Carter and David R. Woodward. January 1954. 38p. diagrs., photo., 3 tabs. (NACA TN 3119)

DIRECTIONAL
(2.10.3)

HYDRODYNAMIC DIRECTIONAL BEHAVIOR OF A SWEPT PLANING-TAIL HULL. Donald D. Arabian. January 10, 1952. 15p. diagrs. (NACA RM L51F04) (Declassified from Confidential, 3/9/54)

PROPULSION

(3)

Complete Systems
(3.1)

USE OF AERODYNAMIC HEATING TO PROVIDE THRUST BY VAPORIZATION OF SURFACE COOLANTS. W. E. Moeckel. February 1954. 37p. diagrs. (NACA TN 3140)

RECIPROCATING ENGINES-TURBINES
(3.1.2)

COMPOUND ENGINES
(3. 1. 2. 2)

EVALUATION OF PISTON-TYPE GAS-GENERATOR ENGINE FOR SUBSONIC TRANSPORT OPERATION. A. F. Lietzke and Hugh M. Henneberry. July 15, 1949. 29p. diagrs., tab. (NACA RM E9D01) (Declassified from Restricted, 12/14/53)

TURBOJET ENGINES
(3.1.3)

CHARACTERISTICS OF A HOT JET DISCHARGED FROM A JET-PROPULSION ENGINE. William A. Fleming. December 27, 1946. 20p. diagrs. (NACA RM E6L27a) (Declassified from Restricted, 12/14/53)

RELATION OF NOZZLE-BLADE AND TURBINE-BUCKET TEMPERATURES TO GAS TEMPERATURES IN A TURBOJET ENGINE. J. Elmo Farmer. April 30, 1948. 37p. diagrs., photos. (NACA RM E7L12) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF 4000-POUND-THRUST CENTRIFUGAL-FLOW-TYPE TURBOJET ENGINE BY INJECTION OF WATER AND ALCOHOL AT COMPRESSOR INLETS. William L. Jones and Helmuth W. Engelman. May 14, 1948. 23p. diagrs. (NACA RM E7J19) (Declassified from Restricted, 12/14/53)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE. IV - PERFORMANCE WITH TAIL-PIPE BURNING AND WATER INJECTION. Robert O. Dietz, Jr., George Wishnek and John K. Kuenzig. June 15, 1948. 31p. diagrs., photo. (NACA RM E7L16) (Declassified from Restricted, 12/14/53)

CONTROL DURING STARTING OF GAS-TURBINE ENGINES. Robert J. Koenig and Marcel Dandois. June 17, 1948. 39p. diagrs., photos. (NACA RM E7L17) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL-FLOW-TYPE 4000-POUND-THRUST TURBOJET ENGINE BY WATER AND ALCOHOL INJECTION AT COMPRESSOR INLET. Burnett Baron, Harry W. Dowman and William C. Dackis. July 8, 1948. 41p. diagrs., photos. (NACA RM E7K14) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. I - NACELLE WITH OFFSET AIR INLET. Edmund E. Callaghan, Robert S. Ruggeri and Richard P. Krebs. July 9, 1948. 22p. diagrs. (NACA RM E8D13) (Declassified from Restricted, 12/14/53)

PRELIMINARY RESULTS OF NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE. Loren W. Acker. August 6, 1948. 16p. diagrs., photos. (NACA RM E8C18) (Declassified from Restricted, 12/14/53)

NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE IN FLIGHT FOR A SINGLE ICING CONDITION. Loren W. Acker. August 12, 1948. 16p. diagrs., photos. (NACA RM E8F01a) (Declassified from Restricted, 12/14/53)

OPERATING TEMPERATURES OF I-40-5 TURBOJET ENGINE BURNER LINERS AND THE EFFECT OF TEMPERATURE VARIATION ON BURNER-LINER SERVICE LIFE. H. D. Wilsted, Robert T. Duffy and Ralph E. Grey. August 23, 1948. 25p. diagrs., photos. (NACA RM E8F29) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. I - PERFORMANCE AND WINDMILLING DRAG CHARACTERISTICS. Stanley L. Gendler and William K. Koffel. August 24, 1948. 75p. diagrs., photos. (NACA RM E8G02) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. IV - ANALYSIS OF COMBUSTION-CHAMBER PERFORMANCE. Reece V. Hensley. August 25, 1948. 34p. diagrs. (NACA RM E8G02c) (Declassified from Restricted, 12/14/53)

Turbojet Engines (Cont.)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. V - OPERATIONAL CHARACTERISTICS. Richard L. Golladay and Stanley L. Gendler. August 25, 1948. 71p. diagrs., photos., 6 tabs. (NACA RM E8G02d) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. II - ANALYSIS OF COMPRESSOR PERFORMANCE CHARACTERISTICS. Robert O. Dietz, Jr. and Robert M. Geisenheyner. August 26, 1948. 28p. diagrs., photos. (NACA RM E8G02a) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. III - ANALYSIS OF TURBINE PERFORMANCE AND EFFECT OF TAIL-PIPE DESIGN ON ENGINE PERFORMANCE. Richard P. Krebs and Frederick C. Foshag. August 26, 1948. 27p. diagrs., photo. (NACA RM E8G02b) (Declassified from Restricted, 12/14/53)

ANALYSIS OF EFFECTS OF INLET PRESSURE LOSSES ON PERFORMANCE OF AXIAL-FLOW TYPE TURBOJET ENGINE. Newell D. Sanders and John Palasics. November 24, 1948. 39p. diagrs. (NACA RM E8J25b) (Declassified from Restricted, 12/14/53)

INLET ICING AND EFFECTIVENESS OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINE. William A. Fleming and Martin J. Saari. November 26, 1948. 37p. diagrs., photos. (NACA RM E8J25c) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF PERFORMANCE OF TURBOJET ENGINE WITH CONSTANT- AND VARIABLE-AREA EXHAUST NOZZLES. Lewis E. Wallner. November 26, 1948. 43p. diagrs., photos., tab. (NACA RM E8J25d) (Declassified from Restricted, 12/14/53)

COMPARISON OF FLIGHT PERFORMANCE OF AN-F-58 AND AN-F-32 FUELS IN J35 TURBOJET ENGINE. Loren W. Acker and Kenneth S. Kleinknecht. April 7, 1949. 15p. diagrs., photo., 2 tabs. (NACA RM E8L02) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF SEVERAL CLAMSHELL VARIABLE-AREA EXHAUST NOZZLES FOR TURBOJET ENGINES. Bruce T. Lundin. May 26, 1949. 52p. diagrs., photos. (NACA RM E9B02) (Declassified from Restricted, 12/14/53)

EVALUATION OF PISTON-TYPE GAS-GENERATOR ENGINE FOR SUBSONIC TRANSPORT OPERATION. A. F. Lietzke and Hugh M. Henneberry. July 15, 1949. 29p. diagrs., tab. (NACA RM E9D01) (Declassified from Restricted, 12/14/53)

CYCLIC ENGINE OPERATION OF CAST VITALLIUM TURBINE BLADES AT AN EXHAUST-CONE GAS TEMPERATURE OF 1440 ± 20° F. Charles Yaker and Floyd B. Garrett. September 19, 1949. 41p. diagrs., photos., 4 tabs. (NACA RM E9G13) (Declassified from Restricted, 12/14/53)

ALTITUDE-CHAMBER PERFORMANCE OF BRITISH ROLLS-ROYCE NENE II ENGINE. I - STANDARD 18.75-INCH-DIAMETER JET NOZZLE. Zelmar Barson and H. D. Wilsted. September 23, 1949. 58p. diagrs., 2 tabs. (NACA RM E9I23) (Declassified from Restricted, 12/14/53)

ALTITUDE-CHAMBER PERFORMANCE OF BRITISH ROLLS-ROYCE NENE II ENGINE. II - 18.41-INCH-DIAMETER JET NOZZLE. J. C. Armstrong, H. D. Wilsted and K. R. Vincent. October 26, 1949. 55p. diagrs., 2 tabs. (NACA RM E9I27) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAIL-PIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FLAME HOLDERS ON J35 TURBOJET ENGINE. E. William Conrad and William R. Prince. November 8, 1949. 50p. diagrs., photos., tab. (NACA RM E9G08) (Declassified from Restricted, 12/14/53)

TRANSIENT OPERATING CHARACTERISTICS OF A TURBOJET ENGINE WHEN SUBJECTED TO STEP CHANGES IN FUEL FLOW. Arthur H. Bell and J. Elmo Farmer. February 20, 1950. 45p. diagrs., photos., 2 tabs. (NACA RM E9K25a) (Declassified from Restricted, 12/14/53)

EFFECT OF AIR DISTRIBUTION ON RADIAL TEMPERATURE DISTRIBUTION IN ONE-SIXTH SECTOR OF ANNULAR TURBOJET COMBUSTOR. Herman Mark and Eugene V. Zettle. April 5, 1950. 54p. diagrs. (NACA RM E9I22) (Declassified from Restricted, 12/8/53)

EFFECTS OF INLET ICING ON PERFORMANCE OF AXIAL-FLOW TURBOJET ENGINE IN NATURAL ICING CONDITIONS. Loren W. Acker and Kenneth S. Kleinknecht. May 25, 1950. 61p. diagrs., photos., tab. (NACA RM E50C15) (Declassified from Restricted, 12/11/53)

APPLICATION OF BLADE COOLING TO GAS TURBINES. Herman H. Ellerbrock, Jr. and Louis J. Schafer, Jr. May 31, 1950. 102p. diagrs., photos. (NACA RM E50A04) (Declassified from Restricted, 12/11/53)

ALTITUDE-CHAMBER PERFORMANCE OF BRITISH ROLLS-ROYCE NENE II ENGINE. IV - EFFECT OF OPERATIONAL VARIABLES ON TEMPERATURE DISTRIBUTION AT COMBUSTION-CHAMBER OUTLETS. Sidney C. Huntley. July 3, 1950. 17p. diagrs., photo. (NACA RM E50B10) (Declassified from Restricted, 12/11/53)

ALTITUDE-CHAMBER PERFORMANCE OF BRITISH ROLLS-ROYCE NENE II ENGINE. III - 18.00-INCH-DIAMETER JET NOZZLE. Ralph E. Grey, Virginia L. Brightwell and Zelmar Barson. July 10, 1950. 60p. diagrs., 2 tabs. (NACA RM E50A31) (Declassified from Restricted, 12/11/53)

ANALYTICAL INVESTIGATION OF TURBINES WITH ADJUSTABLE STATOR BLADES AND EFFECT OF THESE TURBINES ON JET-ENGINE PERFORMANCE. David H. Silvern and William R. Slivka. July 17, 1950. 51p. diagrs. (NACA RM E50E05) (Declassified from Restricted, 12/7/53)

Turbojet Engines (Cont.)

PRELIMINARY ANALYSIS OF EFFECTS OF AIR COOLING TURBINE BLADES ON TURBOJET-ENGINE PERFORMANCE. Wilson B. Schramm, Alfred J. Nachtigall and Vernon L. Arne. August 2, 1950. 34p. diagrs., tab. (NACA RM E50E22) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF EFFECTS OF INLET-AIR VELOCITY DISTORTION ON PERFORMANCE OF TURBOJET ENGINE. E. William Conrad and Adam E. Sobolewski. September 13, 1950. 41p. diagrs., photos. (NACA RM E50G11) (Declassified from Restricted, 12/11/53)

CALCULATED EFFECTS OF TURBINE ROTOR-BLADE COOLING-AIR FLOW, ALTITUDE, AND COMPRESSOR BLEED POINT ON PERFORMANCE OF A TURBOJET ENGINE. Vernon L. Arne and Alfred J. Nachtigall. August 1951. 24p. diagrs., 2 tabs. (NACA RM E51E24)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. IX - EVALUATION OF THE DURABILITY OF NONCRITICAL ROTOR BLADES IN ENGINE OPERATION. Francis S. Stepka and Robert O. Hickel. December 1951. 26p. diagrs., photos., 4 tabs. (NACA RM E51J10)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. II - MECHANICAL DESIGN, STRESS ANALYSIS, AND BURST TEST OF MODIFIED J33 SPLIT-DISK ROTOR. Richard H. Kemp and Merland L. Moseson. January 1952. 46p. diagrs., photos., tab. (NACA RM E51J03)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. III- EXPERIMENTAL COOLING-AIR IMPELLER PERFORMANCE AND TURBINE ROTOR TEMPERATURES IN MODIFIED J33 SPLIT-DISK ROTOR UP TO SPEEDS OF 10,000 RPM. Alfred J. Nachtigall, Charles F. Zalabak and Robert R. Ziemer. May 1952. 42p. diagrs., photos., 3 tabs. (NACA RM E52C12)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

INVESTIGATION OF TITANIUM CARBIDE BASE CERAMALS CONTAINING EITHER NICKEL OR COBALT FOR USE AS GAS-TURBINE BLADES. C. A. Hoffman and A. L. Cooper. August 1952. 33p. photos., diagrs., 5 tabs. (NACA RM E52H05)

INVESTIGATION OF EFFECTS OF REYNOLDS NUMBER ON LARGE DOUBLE-ENTRY CENTRIFUGAL COMPRESSOR. Karl Kovach and Joseph R. Withee, Jr. October 1952. 26p. diagrs. (NACA RM E52H19)

DESIGN CONSIDERATIONS FOR MIXED-FLOW CENTRIFUGAL COMPRESSORS WITH HIGH WEIGHT-FLOW RATES PER UNIT FRONTAL AREA. John D. Stanitz. March 1953. 48p. diagrs. (NACA RM E53A15)

AIR ADMIXTURE TO EXHAUST JETS (Luftzumischung zu Abgasstrahlen). E. Sänger. July 1953. 35p. diagrs. (NACA TM 1357. Trans. from Ingenieur-Archiv, v. 18, no. 5, 1950, p. 310-323).

AN ANALYSIS OF TURBOJET-ENGINE-INLET MATCHING. DeMarquis D. Wyatt. September 1953. 19p. diagrs. (NACA TN 3012)

ANALOG STUDY OF INTERACTING AND NON-INTERACTING MULTIPLE-LOOP CONTROL SYSTEMS FOR TURBOJET ENGINES. George J. Pack and W. E. Phillips, Jr. March 1954. 33p. diagrs., photos. (NACA TN 3112)

TURBO-PROPELLER ENGINES (3.1.4)

ANALYTICAL INVESTIGATION OF EFFECT OF WATER-COOLED TURBINE BLADES ON PERFORMANCE OF TURBINE-PROPELLER POWER PLANTS. William D. Bowman. August 16, 1948. 67p. diagrs. (NACA RM E8E10) (Declassified from Restricted, 12/14/53)

EVALUATION OF PISTON-TYPE GAS-GENERATOR ENGINE FOR SUBSONIC TRANSPORT OPERATION. A. F. Lietzke and Hugh M. Henneberry. July 15, 1949. 29p. diagrs., tab. (NACA RM E9D01) (Declassified from Restricted, 12/14/53)

APPLICATION OF BLADE COOLING TO GAS TURBINES. Herman H. Ellerbrock, Jr. and Louis J. Schafer, Jr. May 31, 1950. 102p. diagrs., photos. (NACA RM E50A04) (Declassified from Restricted, 12/11/53)

A THERMODYNAMIC STUDY OF THE TURBINE-PROPELLER ENGINE. Benjamin Pinkel and Irving M. Karp. 1953. ii, 36p. diagrs. (NACA Rept. 1114. Formerly TN 2653)

PULSE-JET ENGINES (3.1.6)

AIR ADMIXTURE TO EXHAUST JETS (Luftzumischung zu Abgasstrahlen). E. Sänger. July 1953. 35p. diagrs. (NACA TM 1357. Trans. from Ingenieur-Archiv, v. 18, no. 5, 1950, p. 310-323).

RAM-JET ENGINES (3.1.7)

PRELIMINARY TESTS OF A BURNER FOR RAM-JET APPLICATIONS. Paul W. Huber. January 15, 1947. 14p. diagrs. (NACA RM L6K08b) (Declassified from Restricted, 12/14/53)

Ram-Jet Engines (Cont.)

AN ANALYSIS OF DUCTED-AIRFOIL RAM JETS FOR SUPERSONIC AIRCRAFT. Paul R. Hill and A. A. Gammal. July 7, 1948. 43p. diagrs. (NACA RM L7I24) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL DETERMINATION OF THE SUBSONIC PERFORMANCE OF A RAM-JET UNIT CONTAINING THIN-PLATE BURNERS. John R. Henry. June 29, 1949. 54p. diagrs., photos. (NACA RM L9B17) (Declassified from Confidential, 1/8/54)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

INVESTIGATION OF A RAM-JET-POWERED HELICOPTER ROTOR ON THE LANGLEY HELICOPTER TEST TOWER. Paul J. Carpenter and Edward J. Radin. June 1953. 32p. diagrs., photos. (NACA RM L53D02)

AIR ADMIXTURE TO EXHAUST JETS. (Luftzumischung zu Abgasstrahlen). E. Sänger. July 1953. 35p. diagrs. (NACA TM 1357. Trans. from Ingenieur-Archiv, v. 18, no. 5, 1950, p. 310-323).

MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence. August 1953. 45p. diagrs. (NACA RM E53F19)

COMPARISON OF THE PERFORMANCE OF A HELICOPTER-TYPE RAM-JET ENGINE UNDER VARIOUS CENTRIFUGAL LOADINGS. Edward J. Radin and Paul J. Carpenter. October 1953. 17p. diagrs., photos. (NACA RM L53H18a)

EVAPORATION AND SPREADING OF ISOOCTANE SPRAYS IN HIGH-VELOCITY AIR STREAMS. Donald W. Bahr. November 1953. 35p. diagrs., tab. (NACA RM E53I14)

ROCKET ENGINES (3.1.8)

EXPERIMENTAL INVESTIGATION OF A LIGHTWEIGHT ROCKET CHAMBER. John E. Dalgleish and Adelbert O. Tischler. March 1953. 12p. photos. (NACA RM E52L19a)

AIR ADMIXTURE TO EXHAUST JETS. (Luftzumischung zu Abgasstrahlen). E. Sänger. July 1953. 35p. diagrs. (NACA TM 1357. Trans. from Ingenieur-Archiv, v. 18, no. 5, 1950, p. 310-323).

APPLICATION OF AN ELECTRO-OPTICAL TWO-COLOR PYROMETER TO MEASUREMENT OF FLAME TEMPERATURE FOR LIQUID OXYGEN - HYDROCARBON PROPELLANT COMBINATION. M. F. Heidmann and R. J. Priem. October 1953. 39p. diagrs., photos. (NACA TN 3033)

USE OF AERODYNAMIC HEATING TO PROVIDE THRUST BY VAPORIZATION OF SURFACE COOLANTS. W. E. Moeckel. February 1954. 37p. diagrs. (NACA TN 3140)

JET-DRIVEN ROTORS (3.1.9)

AN ANALYSIS OF LAMINAR FREE-CONVECTION FLOW AND HEAT TRANSFER ABOUT A FLAT PLATE PARALLEL TO THE DIRECTION OF THE GENERATING BODY FORCE. Simon Ostrach. APPENDIX B: NUMERICAL SOLUTION OF SIMPLIFIED BOUNDARY-VALUE PROBLEM. Lynn U. Albers. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1111. Formerly TN 2635)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

INVESTIGATION OF A RAM-JET-POWERED HELICOPTER ROTOR ON THE LANGLEY HELICOPTER TEST TOWER. Paul J. Carpenter and Edward J. Radin. June 1953. 32p. diagrs., photos. (NACA RM L53D02)

COMPARISON OF THE PERFORMANCE OF A HELICOPTER-TYPE RAM-JET ENGINE UNDER VARIOUS CENTRIFUGAL LOADINGS. Edward J. Radin and Paul J. Carpenter. October 1953. 17p. diagrs., photos. (NACA RM L53H18a)

ONE-DIMENSIONAL, COMPRESSIBLE, VISCOUS FLOW RELATIONS APPLICABLE TO FLOW IN A DUCTED HELICOPTER BLADE. John R. Henry. December 1953. 16p. diagrs. (NACA TN 3089)

NUCLEAR-ENERGY SYSTEM (3.1.10)

EVALUATION OF PISTON-TYPE GAS-GENERATOR ENGINE FOR SUBSONIC TRANSPORT OPERATION. A. F. Lietzke and Hugh M. Henneberry. July 15, 1949. 29p. diagrs., tab. (NACA RM E9D01) (Declassified from Restricted, 12/14/53)

RESISTANCE OF VARIOUS MATERIALS TO ATTACK BY MOLTEN BISMUTH-LEAD EUTECTIC AT ELEVATED TEMPERATURES. James J. Gangler and Walter J. Engel. September 1951. 14p. diagrs., photos., 2 tabs. (NACA RM E51F21)

COMPARISON OF ENGINE TYPES (3.1.12)

ANALYTICAL INVESTIGATION OF TURBINES WITH ADJUSTABLE STATOR BLADES AND EFFECT OF THESE TURBINES ON JET-ENGINE PERFORMANCE. David H. Silvern and William R. Slivka. July 17, 1950. 51p. diagrs. (NACA RM E50E05) (Declassified from Restricted, 12/7/53)

Control of Engines
(3.2)

DYNAMICS OF MECHANICAL FEEDBACK-TYPE HYDRAULIC SERVOMOTORS UNDER INERTIA LOADS. Harold Gold, Edward W. Otto and Victor L. Ransom. 1953. ii, 21p. diagrs., photos. (NACA Rept. 1125. Formerly TN 2767)

INFLUENCE OF ROTOR-ENGINE TORSIONAL OSCILLATION ON CONTROL OF GAS-TURBINE ENGINE GEARED TO HELICOPTER ROTORS. John C. Sanders. October 1953. 40p. diagrs., photos., 2 tabs. (NACA TN 3027)

AN ANALYTICAL AND EXPERIMENTAL STUDY OF THE TRANSIENT RESPONSE OF A PRESSURE-REGULATING RELIEF VALVE IN A HYDRAULIC CIRCUIT. Harold Gold and Edward W. Otto. March 1954. 54p. diagrs., photo., 3 tabs. (NACA TN 3102)

CONTROL OF TURBOJET ENGINES
(3.2.2)

AN ANALYSIS OF CONTROL REQUIREMENTS AND CONTROL PARAMETERS FOR DIRECT-COUPLED TURBOJET ENGINES. David Novik and Edward W. Otto. February 18, 1948. 50p. diagrs. (NACA RM E7I25a) (Declassified from Restricted, 12/14/53)

ANALYSIS OF PARAMETERS FOR THRUST CONTROL OF A TURBOJET ENGINE EQUIPPED WITH AIR-INLET THROTTLE AND VARIABLE-AREA EXHAUST NOZZLE. Aaron S. Boksenbom and Melvin S. Feder. August 10, 1948. 62p. diagrs. (NACA RM E8B27) (Declassified from Restricted, 12/14/53)

COMPARISON OF FLIGHT PERFORMANCE OF AN-F-58 AND AN-F-32 FUELS IN J35 TURBOJET ENGINE. Loren W. Acker and Kenneth S. Kleinknecht. April 7, 1949. 15p. diagrs., photo., 2 tabs. (NACA RM E8L02) (Declassified from Restricted, 12/14/53)

TRANSIENT OPERATING CHARACTERISTICS OF A TURBOJET ENGINE WHEN SUBJECTED TO STEP CHANGES IN FUEL FLOW. Arthur H. Bell and J. Elmo Farmer. February 20, 1950. 45p. diagrs., photos., 2 tabs. (NACA RM E9K25a) (Declassified from Restricted, 12/14/53)

ANALOG STUDY OF INTERACTING AND NON-INTERACTING MULTIPLE-LOOP CONTROL SYSTEMS FOR TURBOJET ENGINES. George J. Pack and W. E. Phillips, Jr. March 1954. 33p. diagrs., photos. (NACA TN 3112)

TURBINE-PROPELLER ENGINES
(3.2.4)

INFLUENCE OF ROTOR-ENGINE TORSIONAL OSCILLATION ON CONTROL OF GAS-TURBINE ENGINE GEARED TO HELICOPTER ROTORS. John C. Sanders. October 1953. 40p. diagrs., photos., 2 tabs. (NACA TN 3027)

CONTROL OF RAM-JET ENGINES
(3.2.6)

INDIRECT METHODS FOR OBTAINING RAM-JET EXHAUST-GAS TEMPERATURE APPLIED TO FUEL-METERING CONTROL. Eugene Perchonok, William H. Sterbentz and Stanley H. Moore. January 14, 1948. 36p. diagrs. (NACA RM E7H27) (Declassified from Confidential, 1/8/54)

Auxiliary Booster Systems
(3.3)

EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND OPERATING CHARACTERISTICS OF A TAIL-PIPE BURNER FOR A TURBOJET ENGINE. David S. Gabriel, E. Vincent Martinson and Robert H. Essig. October 30, 1947. 29p. diagrs. (NACA RM E7G03) (Declassified from Restricted, 12/14/53)

GAS TURBINES
(3.3.2)

EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND OPERATING CHARACTERISTICS OF A TAIL-PIPE BURNER FOR A TURBOJET ENGINE. David S. Gabriel, E. Vincent Martinson and Robert H. Essig. October 30, 1947. 29p. diagrs. (NACA RM E7G03) (Declassified from Restricted, 12/14/53)

LIQUID INJECTION
(3. 3. 2. 1)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE. II - PERFORMANCE WITH WATER INJECTION AT COMPRESSOR INLET. Robert O. Dietz and William A. Fleming. May 19, 1947. 33p. diagrs. (NACA RM E7C12) (Declassified from Restricted, 12/14/53)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE. IV - PERFORMANCE WITH TAIL-PIPE BURNING AND WATER INJECTION. Robert O. Dietz, Jr., George Wishnek and John K. Kuenzig. June 15, 1948. 31p. diagrs., photo. (NACA RM E7L16) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL-FLOW-TYPE 4000-POUND-THRUST TURBOJET ENGINE BY WATER AND ALCOHOL INJECTION AT COMPRESSOR INLET. Burnett Baron, Harry W. Dowman and William C. Dackis. July 8, 1948. 41p. diagrs., photos. (NACA RM E7K14) (Declassified from Restricted, 12/14/53)

THEORETICAL COMPARISON OF SEVERAL METHODS OF THRUST AUGMENTATION FOR TURBOJET ENGINES. Eldon W. Hall and E. Clinton Wilcox. October 27, 1948. 40p. diagrs. (NACA RM E8H11. Now issued as Rept. 992) (Declassified from Restricted, 12/14/53)

EVALUATION OF CENTRIFUGAL COMPRESSOR PERFORMANCE WITH WATER INJECTION. William L. Beede, Joseph T. Hamrick and Joseph R. Withee, Jr. July 1951. 14p. diagrs. (NACA RM E51E21)

CORRELATION OF ISOTHERMAL CONTOURS FORMED BY PENETRATION OF JET OF LIQUID AMMONIA DIRECTED NORMAL TO AN AIR STREAM. David B. Fenn. February 1954. 38p. diagrs., tab. (NACA RM E53J08)

AFTERBURNING
(3. 3. 2. 2)

ALTITUDE-WIND-TUNNEL INVESTIGATIONS OF THRUST AUGMENTATION OF A TURBOJET ENGINE. I - PERFORMANCE WITH TAIL-PIPE BURNING. W. A. Fleming and R. O. Dietz. September 25, 1946. 56p. diagrs., photos. (NACA RM E6I20) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE AT ZERO RAM BY MEANS OF TAIL-PIPE BURNING. Bruce T. Lundin, Harry W. Dowman and David S. Gabriel. January 6, 1947. 34p. diagrs., photos., tab. (NACA RM E6J21) (Declassified from Restricted, 12/14/53)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE. III - PERFORMANCE WITH TAIL-PIPE BURNING IN STANDARD-SIZE TAIL PIPE. William A. Fleming and Richard L. Golladay. August 11, 1947. 47p. diagrs., photos. (NACA RM E7F10) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND OPERATING CHARACTERISTICS OF A TAIL-PIPE BURNER FOR A TURBOJET ENGINE. David S. Gabriel, E. Vincent Martinson and Robert H. Essig. October 30, 1947. 29p. diagrs. (NACA RM E7G03) (Declassified from Restricted, 12/14/53)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE. IV - PERFORMANCE WITH TAIL-PIPE BURNING AND WATER INJECTION. Robert O. Dietz, Jr., George Wishnek and John K. Kuenzig. June 15, 1948. 31p. diagrs., photo. (NACA RM E7L16) (Declassified from Restricted, 12/14/53)

THEORETICAL COMPARISON OF SEVERAL METHODS OF THRUST AUGMENTATION FOR TURBOJET ENGINES. Eldon W. Hall and E. Clinton Wilcox. October 27, 1948. 40p. diagrs. (NACA RM E8H11. Now issued as Rept. 992) (Declassified from Restricted, 12/14/53)

Afterburning - Gas Turbines (Cont.)

INVESTIGATION OF SEVERAL CLAMSHELL VARIABLE-AREA EXHAUST NOZZLES FOR TURBOJET ENGINES. Bruce T. Lundin. May 26, 1949. 52p. diagrs., photos. (NACA RM E9B02) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAILPIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FLAME HOLDERS ON J35 TURBOJET ENGINE. E. William Conrad and William R. Prince. November 8, 1949. 50p. diagrs., photos., tab. (NACA RM E9G08) (Declassified from Restricted, 12/14/53)

BLEEDOFF
(3.3.2.3)

THEORETICAL COMPARISON OF SEVERAL METHODS OF THRUST AUGMENTATION FOR TURBOJET ENGINES. Eldon W. Hall and E. Clinton Wilcox. October 27, 1948. 40p. diagrs. (NACA RM E8H11. Now issued as Rept. 992) (Declassified from Restricted, 12/14/53)

Fuels
(3.4)

FUEL CHARACTERISTICS PERTINENT TO THE DESIGN OF AIRCRAFT FUEL SYSTEMS. Henry C. Barnett and R. R. Hibbard. June 1953. i, 104p. diagrs., 9 tabs. (NACA RM E53A21)

FUEL CHARACTERISTICS PERTINENT TO THE DESIGN OF AIRCRAFT FUEL SYSTEMS. SUPPLEMENT I - ADDITIONAL INFORMATION ON MIL-F-7914(AER) GRADE JP-5 FUEL AND SEVERAL FUEL OILS. Henry C. Barnett and Robert R. Hibbard. (Supplement to RM E53A21) November 1953. 39p. diagrs., 3 tabs. (NACA RM E53I16)

EFFECTS OF ADDITIVES ON PRESSURE LIMITS OF FLAME PROPAGATION OF PROPANE-AIR MIXTURES. Frank E. Belles and Dorothy M. Simon. December 1953. 36p. diagrs., tab. (NACA RM E53I29)

EFFECT OF DIFFUSION PROCESSES AND TEMPERATURE ON SMOKING TENDENCIES OF LAMINAR DIFFUSION FLAMES. Rose L. Schalla. December 1953. 23p. diagrs., photos. (NACA RM E53J12)

PREPARATION
(3.4.1)

HYDROCARBON AND NONHYDROCARBON DERIVATIVES OF CYCLOPROPANE. Vernon A. Slabey, Paul H. Wise and Louis C. Gibbons. 1953. ii, 18p. diagrs., 4 tabs. (NACA Rept. 1112)

THE SYNTHESIS OF BUTYLSILANES BY A LARGE-SCALE REDUCTION WITH LITHIUM ALUMINUM HYDRIDE. Samuel Kaye, Stanley Tannenbaum and Harold F. Hipsher. July 1953. 12p. photos., diagr. (NACA RM E53F03)

EVAPORATION AND SPREADING OF ISOOCTANE SPRAYS IN HIGH-VELOCITY AIR STREAMS. Donald W. Bahr. November 1953. 35p. diagrs., tab. (NACA RM E53I14)

A THEORETICAL INVESTIGATION OF THE HEATING-UP PERIOD OF INJECTED FUEL DROPLETS VAPORIZING IN AIR. M. M. El Wakil, O. A. Uyehara and P. S. Myers, University of Wisconsin. May 1954. 83p. diagrs., tab. (NACA TN 3179)

PHYSICAL AND CHEMICAL PROPERTIES
(3.4.2)

COMBUSTION-EFFICIENCY AND ALTITUDE-LIMIT INVESTIGATIONS OF FIVE FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. June 7, 1948. 19p. diagrs. (NACA RM E7L30) (Declassified from Restricted, 12/14/53)

CARBON DEPOSITION OF 19 FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. February 3, 1949. 21p. diagrs., 2 tabs. (NACA RM E8K22) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE OF AN-F-58 FUELS IN J35-C-3 SINGLE COMBUSTOR. Edward G. Stricker and Warren D. Rayle. June 14, 1949. 21p. diagrs., 2 tabs. (NACA RM E8L20a) (Declassified from Restricted, 12/14/53)

CORRELATION OF LABORATORY SMOKE TEST WITH CARBON DEPOSITION IN TURBOJET COMBUSTORS. Arthur M. Busch. February 3, 1950. 15p. diagrs., 3 tabs. (NACA RM E9K04) (Declassified from Restricted, 12/14/53)

CARBON-DEPOSITION CHARACTERISTICS OF MIL-F-5624A FUELS CONTAINING HIGH-BOILING AROMATIC HYDROCARBONS. Edmund R. Jonash, Jerrold D. Wear and William P. Cook. August 1952. 11p. diagrs., photos., 2 tabs. (NACA RM E52G11)

HYDROCARBON AND NONHYDROCARBON DERIVATIVES OF CYCLOPROPANE. Vernon A. Slabey, Paul H. Wise and Louis C. Gibbons. 1953. ii, 18p. diagrs., 4 tabs. (NACA Rept. 1112)

FUEL CHARACTERISTICS PERTINENT TO THE DESIGN OF AIRCRAFT FUEL SYSTEMS. Henry C. Barnett and R. R. Hibbard. June 1953. i, 104p. diagrs., 9 tabs. (NACA RM E53A21)

EFFECT OF PRESSURE ON THE SMOKING TENDENCY OF DIFFUSION FLAMES. Rose L. Schalla and Glen F. McDonald. September 1953. 13p. diagrs., 2 tabs. (NACA RM E53E05)

VAPOR PRESSURES OF CONCENTRATED NITRIC ACID SOLUTIONS IN THE COMPOSITION RANGE 83 TO 97 PERCENT NITRIC ACID, 0 TO 6 PERCENT NITROGEN DIOXIDE, 0 TO 15 PERCENT WATER, AND IN THE TEMPERATURE RANGE 20° TO 80° C. A. B. McKeown and Frank E. Belles. September 1953. 22p. diagrs., tab. (NACA RM E53G08)

Physical and Chemical Properties (Cont.)

MINIMUM SPARK-IGNITION ENERGIES OF 12 PURE FUELS AT ATMOSPHERIC AND REDUCED PRESSURE. Allen J. Metzler. October 1953. 28p. diagrs., 5 tabs. (NACA RM E53H31)

FUEL CHARACTERISTICS PERTINENT TO THE DESIGN OF AIRCRAFT FUEL SYSTEMS. SUPPLEMENT I - ADDITIONAL INFORMATION ON MIL-F-7914(AER) GRADE JP-5 FUEL AND SEVERAL FUEL OILS. Henry C. Barnett and Robert R. Hibbard. (Supplement to RM E53A21) November 1953. 39p. diagrs., 3 tabs. (NACA RM E53I16)

EXPLOSION AND COMBUSTION PROPERTIES OF ALKYLSILANES. I - TEMPERATURE-COMPOSITION LIMITS OF EXPLOSION FOR METHYL-, DIMETHYL-, TRIMETHYL-, TETRAMETHYL-, AND VINYLSILANE AT ATMOSPHERIC PRESSURE. Rose L. Schalla and Glen E. McDonald. February 1954. 11p. diagrs. (NACA RM E53L01)

VAPOR PRESSURES AND CALCULATED HEATS OF VAPORIZATION OF CONCENTRATED NITRIC ACID SOLUTIONS IN THE COMPOSITION RANGE 71 TO 89 PERCENT NITRIC ACID, 7 TO 20 PERCENT NITROGEN DIOXIDE, 1 TO 10 PERCENT WATER, AND IN THE TEMPERATURE RANGE 10° TO 60° C. A. B. McKeown and Frank E. Belles. February 1954. 20p. diagrs., 2 tabs. (NACA RM E53L14)

VARIATION OF SPONTANEOUS IGNITION DELAYS WITH TEMPERATURE AND COMPOSITION FOR PROPANE-OXYGEN-NITROGEN MIXTURES AT ATMOSPHERIC PRESSURE. Joseph L. Jackson and Richard S. Brokaw. May 1954. 29p. diagrs., 4 tabs. (NACA RM E54B19)

RELATION TO ENGINE PERFORMANCE (3.4.3)

COMBUSTION-EFFICIENCY AND ALTITUDE-LIMIT INVESTIGATIONS OF FIVE FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. June 7, 1948. 19p. diagrs. (NACA RM E7L30) (Declassified from Restricted, 12/14/53)

EFFECT OF FUELS AND FUEL-NOZZLE CHARACTERISTICS ON PERFORMANCE OF AN ANNULAR COMBUSTOR AT SIMULATED ALTITUDE CONDITIONS. Richard J. McCafferty. September 28, 1948. 90p. diagrs., photos., tab. (NACA RM E8C02a) (Declassified from Restricted, 12/14/53)

CARBON DEPOSITION OF 19 FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. February 3, 1949. 21p. diagrs., 2 tabs. (NACA RM E8K22) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE OF AN-F-58 FUELS IN J35-C-3 SINGLE COMBUSTOR. Edward G. Stricker and Warren D. Rayle. June 14, 1949. 21p. diagrs., 2 tabs. (NACA RM E8L20a) (Declassified from Restricted, 12/14/53)

CORRELATION OF LABORATORY SMOKE TEST WITH CARBON DEPOSITION IN TURBOJET COMBUSTORS. Arthur M. Busch. February 3, 1950. 15p. diagrs., 3 tabs. (NACA RM E9K04) (Declassified from Restricted, 12/14/53)

COMBUSTION EFFICIENCIES IN HYDROCARBON-AIR SYSTEMS AT REDUCED PRESSURES. Robert R. Hibbard, Isadore L. Drell, Allen J. Metzler and Adolph E. Spakowski. September 13, 1950. 12p. diagrs. (NACA RM E50G14) (Declassified from Restricted, 12/11/53)

ANALYTICAL INVESTIGATION OF FUEL TEMPERATURES AND FUEL-EVAPORATION LOSSES ENCOUNTERED IN LONG-RANGE HIGH-ALTITUDE SUPERSONIC FLIGHT. Richard J. McCafferty. August 1953. 38p. diagrs., 2 tabs. (NACA RM E53E25)

TURBINE ENGINES, RAM JETS, AND PULSE JETS (3.4.3.2)

FUEL INVESTIGATION IN A TUBULAR-TYPE COMBUSTOR OF A TURBOJET ENGINE AT SIMULATED ALTITUDE CONDITIONS. Adelbert O. Tischler and Ralph T. Dittrich. August 1, 1947. 41p. diagrs., photo., 2 tabs. (NACA RM E7F12) (Declassified from Restricted, 12/14/53)

COMBUSTION-EFFICIENCY INVESTIGATION OF SPECIAL FUELS IN SINGLE TUBULAR-TYPE COMBUSTOR AT SIMULATED ALTITUDE CONDITIONS. Ralph T. Dittrich. August 15, 1947. 25p. diagrs., 2 tabs. (NACA RM E7F11) (Declassified from Restricted, 12/14/53)

COMPARISON OF FLIGHT PERFORMANCE OF AN-F-58 AND AN-F-32 FUELS IN J35 TURBOJET ENGINE. Loren W. Acker and Kenneth S. Kleinknecht. April 7, 1949. 15p. diagrs., photo., 2 tabs. (NACA RM E8L02) (Declassified from Restricted, 12/14/53)

EFFECT OF RETRACTABLE IGNITION PLUG ON PLUG FOULING BY CARBON DEPOSITS. Jerrold D. Wear and Theodore E. Locke. August 24, 1950. 25p. diagrs., photos. (NACA RM E50F14) (Declassified from Restricted, 12/11/53)

COMBUSTION EFFICIENCIES IN HYDROCARBON-AIR SYSTEMS AT REDUCED PRESSURES. Robert R. Hibbard, Isadore L. Drell, Allen J. Metzler and Adolph E. Spakowski. September 13, 1950. 12p. diagrs. (NACA RM E50G14) (Declassified from Restricted, 12/11/53)

CARBON-DEPOSITION CHARACTERISTICS OF MIL-F-5624A FUELS CONTAINING HIGH-BOILING AROMATIC HYDROCARBONS. Edmund R. Jonash, Jerrold D. Wear and William P. Cook. August 1952. 11p. diagrs., photos., 2 tabs. (NACA RM E52G11)

FUEL CHARACTERISTICS PERTINENT TO THE DESIGN OF AIRCRAFT FUEL SYSTEMS. Henry C. Barnett and R. R. Hibbard. June 1953. i, 104p. diagrs., 9 tabs. (NACA RM E53A21)

Turbine Engines, Ram Jets, and Pulse Jets (Cont.)

EVAPORATION AND SPREADING OF ISOOCTANE SPRAYS IN HIGH-VELOCITY AIR STREAMS. Donald W. Bahr. November 1953. 35p. diagrs., tab. (NACA RM E53I14)

FUEL CHARACTERISTICS PERTINENT TO THE DESIGN OF AIRCRAFT FUEL SYSTEMS. SUPPLEMENT I - ADDITIONAL INFORMATION ON MIL-F-7914(AER) GRADE JP-5 FUEL AND SEVERAL FUEL OILS. Henry C. Barnett and Robert R. Hibbard. (Supplement to RM E53A21) November 1953. 39p. diagrs., 3 tabs. (NACA RM E53I16)

EFFECT OF DIFFUSION PROCESSES AND TEMPERATURE ON SMOKING TENDENCIES OF LAMINAR DIFFUSION FLAMES. Rose L. Schalla. December 1953. 23p. diagrs., photos. (NACA RM E53J12)

ROCKETS (INCLUDES FUEL AND OXIDANT) (3.4.3.3)

PHYSICAL PROPERTIES OF CONCENTRATED NITRIC ACID. W. L. Sibbitt, C. R. St. Clair, T. R. Bump, P. F. Pagerey, J. P. Kern and D. W. Fyfe, Purdue University. June 1953. 19p. diagrs., 2 tabs. (NACA TN 2970)

VAPOR PRESSURES OF CONCENTRATED NITRIC ACID SOLUTIONS IN THE COMPOSITION RANGE 83 TO 97 PERCENT NITRIC ACID, 0 TO 6 PERCENT NITROGEN DIOXIDE, 0 TO 15 PERCENT WATER, AND IN THE TEMPERATURE RANGE 20° TO 80° C. A. B. McKeown and Frank E. Belles. September 1953. 22p. diagrs., tab. (NACA RM E53G08)

VAPOR PRESSURES AND CALCULATED HEATS OF VAPORIZATION OF CONCENTRATED NITRIC ACID SOLUTIONS IN THE COMPOSITION RANGE 71 TO 89 PERCENT NITRIC ACID, 7 TO 20 PERCENT NITROGEN DIOXIDE, 1 TO 10 PERCENT WATER, AND IN THE TEMPERATURE RANGE 10° TO 60° C. A. B. McKeown and Frank E. Belles. February 1954. 20p. diagrs., 2 tabs. (NACA RM E53L14)

EXPERIMENTAL INVESTIGATION OF HEAT-TRANSFER AND FLUID-FRICTION CHARACTERISTICS OF WHITE FUMING NITRIC ACID. Bruce A. Reese and Robert W. Graham, Purdue University. May 1954. 46p. diagrs., tab. (NACA TN 3181)

Combustion and Combustors

(3.5)

EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND OPERATING CHARACTERISTICS OF A TAIL-PIPE BURNER FOR A TURBOJET ENGINE. David S. Gabriel, E. Vincent Martinson and Robert H. Essig. October 30, 1947. 29p. diagrs. (NACA RM E7G03) (Declassified from Restricted, 12/14/53)

GENERAL COMBUSTION RESEARCH

(3.5.1)

EFFECT OF AIR DISTRIBUTION ON RADIAL TEMPERATURE DISTRIBUTION IN ONE-SIXTH SECTOR OF ANNULAR TURBOJET COMBUSTOR. Herman Mark and Eugene V. Zettle. April 5, 1950. 54p. diagrs. (NACA RM E9I22) (Declassified from Restricted, 12/8/53)

ALTITUDE-CHAMBER PERFORMANCE OF BRITISH ROLLS-ROYCE NENE II ENGINE. IV - EFFECT OF OPERATIONAL VARIABLES ON TEMPERATURE DISTRIBUTION AT COMBUSTION-CHAMBER OUTLETS. Sidney C. Huntley. July 3, 1950. 17p. diagrs., photo. (NACA RM E50B10) (Declassified from Restricted, 12/11/53)

COMBUSTION EFFICIENCIES IN HYDROCARBON-AIR SYSTEMS AT REDUCED PRESSURES. Robert R. Hibbard, Isadore L. Drell, Allen J. Metzler and Adolph E. Spakowski. September 13, 1950. 12p. diagrs. (NACA RM E50G14) (Declassified from Restricted, 12/11/53)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

HYDROCARBON AND NONHYDROCARBON DERIVATIVES OF CYCLOPROPANE. Vernon A. Slabey, Paul H. Wise and Louis C. Gibbons. 1953. ii, 18p. diagrs., 4 tabs. (NACA Rept. 1112)

EFFECT OF PRESSURE ON THE SMOKING TENDENCY OF DIFFUSION FLAMES. Rose L. Schalla and Glen F. McDonald. September 1953. 13p. diagrs., 2 tabs. (NACA RM E53E05)

EFFECTS OF ADDITIVES ON PRESSURE LIMITS OF FLAME PROPAGATION OF PROPANE-AIR MIXTURES. Frank E. Belles and Dorothy M. Simon. December 1953. 36p. diagrs., tab. (NACA RM E53I29)

EFFECT OF DIFFUSION PROCESSES AND TEMPERATURE ON SMOKING TENDENCIES OF LAMINAR DIFFUSION FLAMES. Rose L. Schalla. December 1953. 23p. diagrs., photos. (NACA RM E53J12)

LUBRICANTS OF REDUCED FLAMMABILITY. Charles E. Frank, Donald E. Swarts and Kenneth T. Mecklenborg, University of Cincinnati. January 1954. 24p. diagrs., tab. (NACA TN 3117)

FLAME QUENCHING BY A VARIABLE-WIDTH RECTANGULAR-SLOT BURNER AS A FUNCTION OF PRESSURE FOR VARIOUS PROPANE-OXYGEN-NITROGEN MIXTURES. Abraham L. Berlad. January 1954. 42p. diagrs., 3 tabs. (NACA RM E53K30)

AN EVALUATION OF THE SOAP-BUBBLE METHOD FOR BURNING VELOCITY MEASUREMENTS USING ETHYLENE-OXYGEN-NITROGEN AND METHANE-OXYGEN-NITROGEN MIXTURES. Dorothy M. Simon and Edgar L. Wong. February 1954. 30p. diagrs., photos., 5 tabs. (NACA TN 3106)

EXPLOSION AND COMBUSTION PROPERTIES OF ALKYLSILANES. I - TEMPERATURE-COMPOSITION LIMITS OF EXPLOSION FOR METHYL-, DIMETHYL-, TRIMETHYL-, TETRAMETHYL-, AND VINYLSILANE AT ATMOSPHERIC PRESSURE. Rose L. Schalla and Glen E. McDonald. February 1954. 11p. diagrs. (NACA RM E53L01)

A FLOW CALORIMETER FOR DETERMINING COMBUSTION EFFICIENCY FROM RESIDUAL ENTHALPY OF EXHAUST GASES. Albert Evans and Robert R. Hibbard. March 1954. 21p. diagrs., 2 tabs. (NACA RM E53L21b)

A THEORETICAL INVESTIGATION OF THE HEATING-UP PERIOD OF INJECTED FUEL DROPLETS VAPORIZING IN AIR. M. M. El Wakil, O. A. Uyehara and P. S. Myers, University of Wisconsin. May 1954. 83p. diagrs., tab. (NACA TN 3179)

VARIATION OF SPONTANEOUS IGNITION DELAYS WITH TEMPERATURE AND COMPOSITION FOR PROPANE-OXYGEN-NITROGEN MIXTURES AT ATMOSPHERIC PRESSURE. Joseph L. Jackson and Richard S. Brokaw. May 1954. 29p. diagrs., 4 tabs. (NACA RM E54B19)

EFFECT OF CHANNEL GEOMETRY ON THE QUENCHING OF LAMINAR FLAMES. A. L. Berlad and A. E. Potter, Jr. May 1954. 32p. diagrs., tab. (NACA RM E54C05)

LAMINAR-FLOW COMBUSTION (3. 5. 1. 1)

EFFECTS OF ADDITIVES ON PRESSURE LIMITS OF FLAME PROPAGATION OF PROPANE-AIR MIXTURES. Frank E. Belles and Dorothy M. Simon. December 1953. 36p. diagrs., tab. (NACA RM E53I29)

FLAME QUENCHING BY A VARIABLE-WIDTH RECTANGULAR-SLOT BURNER AS A FUNCTION OF PRESSURE FOR VARIOUS PROPANE-OXYGEN-NITROGEN MIXTURES. Abraham L. Berlad. January 1954. 42p. diagrs., 3 tabs. (NACA RM E53K30)

AN EVALUATION OF THE SOAP-BUBBLE METHOD FOR BURNING VELOCITY MEASUREMENTS USING ETHYLENE-OXYGEN-NITROGEN AND METHANE-OXYGEN-NITROGEN MIXTURES. Dorothy M. Simon and Edgar L. Wong. February 1954. 30p. diagrs., photos., 5 tabs. (NACA TN 3106)

EFFECT OF CHANNEL GEOMETRY ON THE QUENCHING OF LAMINAR FLAMES. A. L. Berlad and A. E. Potter, Jr. May 1954. 32p. diagrs., tab. (NACA RM E54C05)

TURBULENT-FLOW COMBUSTION (3. 5. 1. 2)

MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence. August 1953. 45p. diagrs. (NACA RM E53F19)

EFFECTS OF FUEL ATOMIZATION (3. 5. 1. 4)

CONTROL DURING STARTING OF GAS-TURBINE ENGINES. Robert J. Koenig and Marcel Dandois. June 17, 1948. 39p. diagrs., photos. (NACA RM E7L17) (Declassified from Restricted, 12/14/53)

EFFECT OF FUELS AND FUEL-NOZZLE CHARACTERISTICS ON PERFORMANCE OF AN ANNULAR COMBUSTOR AT SIMULATED ALTITUDE CONDITIONS. Richard J. McCafferty. September 28, 1948. 90p. diagrs., photos., tab. (NACA RM E8C02a) (Declassified from Restricted, 12/14/53)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

A THEORETICAL INVESTIGATION OF THE HEATING-UP PERIOD OF INJECTED FUEL DROPLETS VAPORIZING IN AIR. M. M. El Wakil, O. A. Uyehara and P. S. Myers, University of Wisconsin. May 1954. 83p. diagrs., tab. (NACA TN 3179)

REACTION MECHANISMS (3. 5. 1. 5)

REACTION PROCESSES LEADING TO SPONTANEOUS IGNITION OF HYDROCARBONS. Charles E. Frank and Angus U. Blackham, University of Cincinnati. June 1953. 27p. diagrs., 6 tabs. (NACA TN 2958)

EFFECT OF WATER ON CARBON MONOXIDE - OXYGEN FLAME VELOCITY. Glen E. McDonald. February 1954. 15p. diagrs., 2 tabs. (NACA RM E53L08)

VARIATION OF SPONTANEOUS IGNITION DELAYS WITH TEMPERATURE AND COMPOSITION FOR PROPANE-OXYGEN-NITROGEN MIXTURES AT ATMOSPHERIC PRESSURE. Joseph L. Jackson and Richard S. Brokaw. May 1954. 29p. diagrs., 4 tabs. (NACA RM E54B19)

IGNITION OF GASES (3. 5. 1. 6)

CONTROL DURING STARTING OF GAS-TURBINE ENGINES. Robert J. Koenig and Marcel Dandois. June 17, 1948. 39p. diagrs., photos. (NACA RM E7L17) (Declassified from Restricted, 12/14/53)

ELECTROSTATIC SPARK IGNITION-SOURCE HAZARD IN AIRPLANE CRASHES. Arthur M. Busch. October 1953. 28p. diagrs., photos., tab. (NACA TN 3026)

MINIMUM SPARK-IGNITION ENERGIES OF 12 PURE FUELS AT ATMOSPHERIC AND REDUCED PRESSURE. Allen J. Metzler. October 1953. 28p. diagrs., 5 tabs. (NACA RM E53H31)

VARIATION OF SPONTANEOUS IGNITION DELAYS WITH TEMPERATURE AND COMPOSITION FOR PROPANE-OXYGEN-NITROGEN MIXTURES AT ATMOSPHERIC PRESSURE. Joseph L. Jackson and Richard S. Brokaw. May 1954. 29p. diagrs., 4 tabs. (NACA RM E54B19)

EFFECT OF ENGINE OPERATING CONDITIONS & COMBUSTION CHAMBER GEOMETRY (3.5.2)

COMBUSTION-EFFICIENCY INVESTIGATION OF SPECIAL FUELS IN SINGLE TUBULAR-TYPE COMBUSTOR AT SIMULATED ALTITUDE CONDITIONS. Ralph T. Dittrich. August 15, 1947. 25p. diagrs., 2 tabs. (NACA RM E7F11) (Declassified from Restricted, 12/14/53)

Effect of Engine Operating Conditions and Combustion Chamber Geometry (Cont.)

EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND OPERATING CHARACTERISTICS OF A TAIL-PIPE BURNER FOR A TURBOJET ENGINE. David S. Gabriel, E. Vincent Martinson and Robert H. Essig. October 30, 1947. 29p. diagrs. (NACA RM E7G03) (Declassified from Restricted, 12/14/53)

COMBUSTION-EFFICIENCY AND ALTITUDE-LIMIT INVESTIGATIONS OF FIVE FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. June 7, 1948. 19p. diagrs. (NACA RM E7L30) (Declassified from Restricted, 12/14/53)

CARBON DEPOSITION OF 19 FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. February 3, 1949. 21p. diagrs., 2 tabs. (NACA RM E8K22) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE OF AN-F-58 FUELS IN J35-C-3 SINGLE COMBUSTOR. Edward G. Stricker and Warren D. Rayle. June 14, 1949. 21p. diagrs., 2 tabs. (NACA RM E8L20a) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAIL-PIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FLAME HOLDERS ON J35 TURBOJET ENGINE. E. William Conrad and William R. Prince. November 8, 1949. 50p. diagrs., photos., tab. (NACA RM E9G08) (Declassified from Restricted, 12/14/53)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

INVESTIGATION OF A RAM-JET-POWERED HELICOPTER ROTOR ON THE LANGLEY HELICOPTER TEST TOWER. Paul J. Carpenter and Edward J. Radin. June 1953. 32p. diagrs., photos. (NACA RM L53D02)

COMPARISON OF THE PERFORMANCE OF A HELICOPTER-TYPE RAM-JET ENGINE UNDER VARIOUS CENTRIFUGAL LOADINGS. Edward J. Radin and Paul J. Carpenter. October 1953. 17p. diagrs., photos. (NACA RM L53H18a)

RECIPROCATING ENGINES (3.5.2.1)

A FUEL-DISTRIBUTION CONTROL FOR CONTINUOUS-FLOW MANIFOLD INJECTION ON RECIPROCATING ENGINES. Harold Gold and David M. Straight. June 6, 1947. 16p. diagrs., photos. (NACA RM E7D22) (Declassified from Restricted, 12/14/53)

TURBINE ENGINES (3.5.2.2)

EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE AT ZERO RAM BY MEANS OF TAIL-PIPE BURNING. Bruce T. Lundin, Harry W. Dowman and David S. Gabriel. January 6, 1947. 34p. diagrs., photos., tab. (NACA RM E6J21) (Declassified from Restricted, 12/14/53)

FUEL INVESTIGATION IN A TUBULAR-TYPE COMBUSTOR OF A TURBOJET ENGINE AT SIMULATED ALTITUDE CONDITIONS. Adelbert O. Tischler and Ralph T. Dittrich. August 1, 1947. 41p. diagrs., photo., 2 tabs. (NACA RM E7F12) (Declassified from Restricted, 12/14/53)

ALTITUDE-WIND-TUNNEL INVESTIGATION OF THRUST AUGMENTATION OF A TURBOJET ENGINE. III - PERFORMANCE WITH TAIL-PIPE BURNING IN STANDARD-SIZE TAIL PIPE. William A. Fleming and Richard L. Golladay. August 11, 1947. 47p. diagrs., photos. (NACA RM E7F10) (Declassified from Restricted, 12/14/53)

COMBUSTION-EFFICIENCY INVESTIGATION OF SPECIAL FUELS IN SINGLE TUBULAR-TYPE COMBUSTOR AT SIMULATED ALTITUDE CONDITIONS. Ralph T. Dittrich. August 15, 1947. 25p. diagrs., 2 tabs. (NACA RM E7F11) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF PERFORMANCE AND OPERATING CHARACTERISTICS OF A TAIL-PIPE BURNER FOR A TURBOJET ENGINE. David S. Gabriel, E. Vincent Martinson and Robert H. Essig. October 30, 1947. 29p. diagrs. (NACA RM E7G03) (Declassified from Restricted, 12/14/53)

COMBUSTION-EFFICIENCY AND ALTITUDE-LIMIT INVESTIGATIONS OF FIVE FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. June 7, 1948. 19p. diagrs. (NACA RM E7L30) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. IV - ANALYSIS OF COMBUSTION-CHAMBER PERFORMANCE. Reece V. Hensley. August 25, 1948. 34p. diagrs. (NACA RM E8G02c) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. V - OPERATIONAL CHARACTERISTICS. Richard L. Golladay and Stanley L. Gendler. August 25, 1948. 71p. diagrs., photos., 6 tabs. (NACA RM E8G02d) (Declassified from Restricted, 12/14/53)

PERFORMANCE INVESTIGATION OF CAN-TYPE COMBUSTOR. I - INSTRUMENTATION, ALTITUDE OPERATIONAL LIMITS AND COMBUSTION EFFICIENCY. Eugene V. Zettle and William P. Cook. September 16, 1948. 21p. diagrs., photo., tab. (NACA RM E8F17) (Declassified from Restricted, 12/14/53)

EFFECT OF FUELS AND FUEL-NOZZLE CHARACTERISTICS ON PERFORMANCE OF AN ANNULAR COMBUSTOR AT SIMULATED ALTITUDE CONDITIONS. Richard J. McCafferty. September 28, 1948. 90p. diagrs., photos., tab. (NACA RM E8C02a) (Declassified from Restricted, 12/14/53)

Turbine Engines (Cont.)

CARBON DEPOSITION OF 19 FUELS IN AN ANNULAR TURBOJET COMBUSTOR. Jerrold D. Wear and Edmund R. Jonash. February 3, 1949. 21p. diagrs., 2 tabs. (NACA RM E8K22) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE OF AN-F-58 FUELS IN J35-C-3 SINGLE COMBUSTOR. Edward G. Stricker and Warren D. Rayle. June 14, 1949. 21p. diagrs., 2 tabs. (NACA RM E8L20a) (Declassified from Restricted, 12/14/53)

EFFECT OF AIR DISTRIBUTION ON RADIAL TEMPERATURE DISTRIBUTION IN ONE-SIXTH SECTOR OF ANNULAR TURBOJET COMBUSTOR. Herman Mark and Eugene V. Zettle. April 5, 1950. 54p. diagrs. (NACA RM E9I22) (Declassified from Restricted, 12/8/53)

ALTITUDE-CHAMBER PERFORMANCE OF BRITISH ROLLS-ROYCE NENE II ENGINE. IV - EFFECT OF OPERATIONAL VARIABLES ON TEMPERATURE DISTRIBUTION AT COMBUSTION-CHAMBER OUTLETS. Sidney C. Huntley. July 3, 1950. 17p. diagrs., photo. (NACA RM E50B10) (Declassified from Restricted, 12/11/53)

SIMULATED ALTITUDE PERFORMANCE OF TWO ANNULAR COMBUSTORS WITH CONTINUOUS AXIAL OPENINGS FOR ADMISSION OF PRIMARY AIR. Eugene V. Zettle and Herman Mark. August 3, 1950. 39p. diagrs. (NACA RM E50E18a) (Declassified from Restricted, 12/11/53)

EFFECT OF RETRACTABLE IGNITION PLUG ON PLUG FOULING BY CARBON DEPOSITS. Jerrold D. Wear and Theodore E. Locke. August 24, 1950. 25p. diagrs., photos. (NACA RM E50F14) (Declassified from Restricted, 12/11/53)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

CARBON-DEPOSITION CHARACTERISTICS OF MIL-F-5624A FUELS CONTAINING HIGH-BOILING AROMATIC HYDROCARBONS. Edmund R. Jonash, Jerrold D. Wear and William P. Cook. August 1952. 11p. diagrs., photos., 2 tabs. (NACA RM E52G11)

RAM-JET ENGINES
(3. 5. 2. 3)

PRELIMINARY TESTS OF A BURNER FOR RAM-JET APPLICATIONS. Paul W. Huber. January 15, 1947. 14p. diagrs. (NACA RM L6K08b) (Declassified from Restricted, 12/14/53)

EFFECT OF INLET-AIR PARAMETERS ON COMBUSTION LIMIT AND FLAME LENGTH IN 8-INCH DIAMETER RAM-JET COMBUSTION CHAMBER. A. J. Cervenka and R. C. Miller. July 22, 1948. 24p. diagrs. (NACA RM E8C09) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL DETERMINATION OF THE SUBSONIC PERFORMANCE OF A RAM-JET UNIT CONTAINING THIN-PLATE BURNERS. John R. Henry. June 29, 1949. 54p. diagrs., photos. (NACA RM L9B17) (Declassified from Confidential, 1/8/54)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

EVAPORATION AND SPREADING OF ISOOCTANE SPRAYS IN HIGH-VELOCITY AIR STREAMS. Donald W. Bahr. November 1953. 35p. diagrs., tab. (NACA RM E53I14)

ROCKET ENGINES
(3. 5. 2. 5)

APPLICATION OF AN ELECTRO-OPTICAL TWO-COLOR PYROMETER TO MEASUREMENT OF FLAME TEMPERATURE FOR LIQUID OXYGEN - HYDROCARBON PROPELLANT COMBINATION. M. F. Heidmann and R. J. Priem. October 1953. 39p. diagrs., photos. (NACA TN 3033)

COMPARISON OF MODEL AND FULL-SCALE SPIN RECOVERIES OBTAINED BY USE OF ROCKETS. Sanger M. Burk, Jr. and Frederick M. Healy. February 1954. 63p. diagrs., photos., 5 tabs. (NACA TN 3068)

Compression and Compressors

(3.6)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. II - ANALYSIS OF COMPRESSOR PERFORMANCE CHARACTERISTICS. Robert O. Dietz, Jr. and Robert M. Geisenheyner. August 26, 1948. 28p. diagrs., photos. (NACA RM E8G02a) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF EFFECTS OF INLET-AIR VELOCITY DISTORTION ON PERFORMANCE OF TURBOJET ENGINE. E. William Conrad and Adam E. Sobolewski. September 13, 1950. 41p. diagrs., photos. (NACA RM E50G11) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF EFFECTS OF REYNOLDS NUMBER ON LARGE DOUBLE-ENTRY CENTRIFUGAL COMPRESSOR. Karl Kovach and Joseph R. Withee, Jr. October 1952. 26p. diagrs. (NACA RM E52H19)

DESIGN CONSIDERATIONS FOR MIXED-FLOW CENTRIFUGAL COMPRESSORS WITH HIGH WEIGHT-FLOW RATES PER UNIT FRONTAL AREA. John D. Stanitz. March 1953. 48p. diagrs. (NACA RM E53A15)

FLOW THEORY AND EXPERIMENT

(3.6.1)

PERFORMANCE OF 24-INCH SUPERSONIC AXIAL-FLOW COMPRESSOR IN AIR. III - COMPRESSOR PERFORMANCE WITH INLET GUIDE VANES. Melvin J. Hartmann and Edward R. Tysl. July 10, 1950. 15p. diagrs. (NACA RM E50D27) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF EFFECTS OF REYNOLDS NUMBER ON LARGE DOUBLE-ENTRY CENTRIFUGAL COMPRESSOR. Karl Kovach and Joseph R. Withee, Jr. October 1952. 26p. diagrs. (NACA RM E52H19)

SUBSONIC FLOW OF AIR THROUGH A SINGLE-STAGE AND A SEVEN-STAGE COMPRESSOR. Chung-Hua Wu. June 1953. 32p. diagrs., 2 tabs. (NACA TN 2961)

EFFECT OF BLADE-THICKNESS TAPER ON AXIAL-VELOCITY DISTRIBUTION AT THE LEADING EDGE OF AN ENTRANCE ROTOR-BLADE ROW WITH AXIAL INLET, AND THE INFLUENCE OF THIS DISTRIBUTION ON ALINEMENT OF THE ROTOR BLADE FOR ZERO ANGLE OF ATTACK. John D. Stanitz. August 1953. 33p. diagrs. (NACA TN 2986)

LINEARIZED POTENTIAL THEORY OF PROPELLER INDUCTION IN A COMPRESSIBLE FLOW. Robert E. Davidson. September 1953. 47p. diagrs., 5 tabs. (NACA TN 2983)

AXIAL FLOW

(3.6.1.1)

EXPERIMENTAL INVESTIGATION OF THRUST AUGMENTATION OF AXIAL-FLOW-TYPE 4000-POUND-THRUST TURBOJET ENGINE BY WATER AND ALCOHOL INJECTION AT COMPRESSOR INLET. Burnett Baron, Harry W. Dowman and William C. Dackis. July 8, 1948. 41p. diagrs., photos. (NACA RM E7K14) (Declassified from Restricted, 12/14/53)

PRELIMINARY RESULTS OF NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE. Loren W. Acker. August 6, 1948. 16p. diagrs., photos. (NACA RM E8C18) (Declassified from Restricted, 12/14/53)

NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE IN FLIGHT FOR A SINGLE ICING CONDITION. Loren W. Acker. August 12, 1948. 16p. diagrs., photos. (NACA RM E8F01a) (Declassified from Restricted, 12/14/53)

EFFECT OF MACH NUMBER ON PERFORMANCE OF AN AXIAL-FLOW COMPRESSOR ROTOR-BLADE ROW. Paul D. Dugan, John J. Mahoney and William A. Benser. September 28, 1948. 27p. diagrs., photo. (NACA RM E8D29) (Declassified from Restricted, 12/14/53)

EFFECTS OF OBSTRUCTIONS IN COMPRESSOR INLET ON BLADE VIBRATION IN 10-STAGE AXIAL-FLOW COMPRESSOR. Andre J. Meyer, Jr., Howard F. Calvert and C. Robert Morse. February 13, 1950. 16p. diagrs. (NACA RM E9L05) (Declassified from Restricted, 12/14/53)

EFFECTS OF INLET ICING ON PERFORMANCE OF AXIAL-FLOW TURBOJET ENGINE IN NATURAL ICING CONDITIONS. Loren W. Acker and Kenneth S. Kleinknecht. May 25, 1950. 61p. diagrs., photos., tab. (NACA RM E50C15) (Declassified from Restricted, 12/11/53)

PERFORMANCE OF 24-INCH SUPERSONIC AXIAL-FLOW COMPRESSOR IN AIR. III - COMPRESSOR PERFORMANCE WITH INLET GUIDE VANES. Melvin J. Hartmann and Edward R. Tysl. July 10, 1950. 15p. diagrs. (NACA RM E50D27) (Declassified from Restricted, 12/11/53)

Axial Flow Theory and Experiment (Cont.)

INVESTIGATION OF EFFECTS OF INLET-AIR VELOCITY DISTORTION ON PERFORMANCE OF TURBOJET ENGINE. E. William Conrad and Adam E. Sobolewski. September 13, 1950. 41p. diagrs., photos. (NACA RM E50G11) (Declassified from Restricted, 12/11/53)

EFFECT OF BLADE-SURFACE FINISH ON PERFORMANCE OF A SINGLE-STAGE AXIAL-FLOW COMPRESSOR. Jason J. Moses and George K. Serovy. April 16, 1951. 25p. diagrs., photos., 2 tabs. (NACA RM E51C09) (Declassified from Restricted, 12/11/53)

SOME EFFECTS OF SOLIDITY ON TURNING THROUGH CONSTANT-THICKNESS CIRCULAR-ARC GUIDE VANES IN AXIAL ANNULAR FLOW. Harry Mankuta and Donald C. Guentert. August 1951. 19p. diagrs. (NACA RM E51E07)

SECONDARY FLOWS IN ANNULAR CASCADES AND EFFECTS ON FLOW IN INLET GUIDE VANES. Seymour Lieblein and Richard H. Ackley. August 1951. 63p. diagrs., tab. (NACA RM E51G27)

PERFORMANCE OF SINGLE-STAGE COMPRESSOR DESIGNED ON BASIS OF CONSTANT TOTAL ENTHALPY WITH SYMMETRICAL VELOCITY DIAGRAM AT ALL RADII AND VELOCITY RATIO OF 0.7 AT ROTOR HUB. Jack R. Burtt and Robert J. Jackson. September 1951. 14p. diagrs. (NACA RM E51F06)

PERFORMANCE OF A CASCADE IN AN ANNULAR VORTEX-GENERATING TUNNEL OVER RANGE OF REYNOLDS NUMBERS. Sidney Thurston and Ralph E. Brunk. September 1951. 33p. diagrs. (NACA RM E51G30)

ANALYSIS OF STAGE MATCHING AND OFF-DESIGN PERFORMANCE OF MULTISTAGE AXIAL-FLOW COMPRESSORS. Harold B. Finger and James F. Dugan, Jr. June 1952. 38p. diagrs. (NACA RM E52D07)

EXPERIMENTAL INVESTIGATION OF FLOW THROUGH THREE HIGHLY LOADED INLET GUIDE VANES HAVING DIFFERENT SPANWISE CIRCULATION GRADIENTS. Loren A. Beatty, Melvyn Savage and James C. Emery. July 1952. 24p. diagrs., tab. (NACA RM L52D25a)

APPLICATION OF A CHANNEL DESIGN METHOD TO HIGH-SOLIDITY CASCADES AND TESTS OF AN IMPULSE CASCADE WITH 90° OF TURNING. John D. Stanitz and Leonard J. Sheldrake. 1953. ii, 20p. diagrs., photos., 2 tabs. (NACA Rept. 1116. Formerly TN 2652)

SUBSONIC FLOW OF AIR THROUGH A SINGLE-STAGE AND A SEVEN-STAGE COMPRESSOR. Chung-Hua Wu. June 1953. 32p. diagrs., 2 tabs. (NACA TN 2961)

RADIAL FLOW (3.6.1.2)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. II - ANALYSIS OF COMPRESSOR PERFORMANCE CHARACTERISTICS. Robert O. Dietz, Jr. and Robert M. Geisenheyner. August 26, 1948. 28p. diagrs., photos. (NACA RM E8G02a) (Declassified from Restricted, 12/14/53)

EVALUATION OF CENTRIFUGAL COMPRESSOR PERFORMANCE WITH WATER INJECTION. William L. Beede, Joseph T. Hamrick and Joseph R. Withee, Jr. July 1951. 14p. diagrs. (NACA RM E51E21)

INVESTIGATION OF EFFECTS OF REYNOLDS NUMBER ON LARGE DOUBLE-ENTRY CENTRIFUGAL COMPRESSOR. Karl Kovach and Joseph R. Withee, Jr. October 1952. 26p. diagrs. (NACA RM E52H19)

A NOTE ON SECONDARY FLOW IN ROTATING RADIAL CHANNELS. James J. Kramer and John D. Stanitz. October 1953. 33p. diagrs. (NACA TN 3013)

STUDY OF THREE-DIMENSIONAL INTERNAL FLOW DISTRIBUTION BASED ON MEASUREMENTS IN A 48-INCH RADIAL-INLET CENTRIFUGAL IMPELLER. Joseph T. Hamrick, John Mizisin and Donald J. Michel. February 1954. 64p. diagrs., photos. (NACA TN 3101)

MIXED FLOW (3.6.1.3)

DESIGN AND PERFORMANCE OF EXPERIMENTAL AXIAL-DISCHARGE MIXED-FLOW COMPRESSOR. I - IMPELLER DESIGN THEORY. Arthur W. Goldstein. August 12, 1948. 32p. diagrs. (NACA RM E8F04) (Declassified from Restricted, 12/14/53)

DESIGN CONSIDERATIONS FOR MIXED-FLOW CENTRIFUGAL COMPRESSORS WITH HIGH WEIGHT-FLOW RATES PER UNIT FRONTAL AREA. John D. Stanitz. March 1953. 48p. diagrs. (NACA RM E53A15)

APPLICATION OF A CHARACTERISTIC BLADE-TO-BLADE SOLUTION TO FLOW IN A SUPERSONIC ROTOR WITH VARYING STREAM-FILAMENT THICKNESS. Eleanor L. Costilow. August 1953. 36p. diagrs., 5 tabs. (NACA TN 2992)

STRESS AND VIBRATION (3.6.2)

VIBRATION SURVEY OF NACA 24-INCH SUPERSONIC AXIAL-FLOW COMPRESSOR. André J. Meyer, Jr. and Morgan P. Hanson. July 30, 1948. 45p. diagrs., photos. (NACA RM E8D30) (Declassified from Confidential, 1/8/54)

Stress and Vibration (Cont.)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. I - STATIC INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 34p. diagrs., photos., 2 tabs. (NACA RM E8J22) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. II - DYNAMIC INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 25p. diagrs., photos. (NACA RM E8J22a) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. III - PRELIMINARY ENGINE INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 23p. diagrs., photo. (NACA RM E8J22b) (Declassified from Restricted, 12/14/53)

EFFECTS OF OBSTRUCTIONS IN COMPRESSOR INLET ON BLADE VIBRATION IN 10-STAGE AXIAL-FLOW COMPRESSOR. Andre J. Meyer, Jr., Howard F. Calvert and C. Robert Morse. February 13, 1950. 16p. diagrs. (NACA RM E9L05) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF CASCADING ON THE OSCILLATING LIFT FORCE OF AN AIRFOIL VIBRATED IN BENDING. Donald F. Johnson and Alexander Mendelson. September 1953. 15p. diagrs., photos. (NACA RM E53F29)

MATCHING
(3.6.3)

A THERMODYNAMIC STUDY OF THE TURBINE-PROPELLER ENGINE. Benjamin Pinkel and Irving M. Karp. 1953. ii, 36p. diagrs. (NACA Rept. 1114. Formerly TN 2653)

Turbines
(3.7)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. III - ANALYSIS OF TURBINE PERFORMANCE AND EFFECT OF TAIL-PIPE DESIGN ON ENGINE PERFORMANCE. Richard P. Krebs and Frederick C. Foshag. August 26, 1948. 27p. diagrs., photo. (NACA RM E8G02b) (Declassified from Restricted, 12/14/53)

SOME EFFECTS OF STATOR CONE ANGLE AND BLADE-TIP LEAKAGE ON 40-PERCENT-REACTION TURBINE HAVING ROTOR-BLADE CAPS. Robert E. English, Robert J. McCready and John S. McCarthy. March 23, 1949. 28p. diagrs., photo. (NACA RM E8I21) (Declassified from Restricted, 12/14/53)

TURBINE-ROTOR-BLADE DESIGNS BASED ON ONE-DIMENSIONAL-FLOW THEORY. I - PERFORMANCE OF SINGLE-STAGE TURBINE HAVING 40-PERCENT REACTION. Robert E. English and Cavour H. Hauser. June 10, 1949. 31p. diagrs., photo. (NACA RM E9C15) (Declassified from Restricted, 12/14/53)

ANALYTICAL INVESTIGATION OF TURBINES WITH ADJUSTABLE STATOR BLADES AND EFFECT OF THESE TURBINES ON JET-ENGINE PERFORMANCE. David H. Silvern and William R. Slivka. July 17, 1950. 51p. diagrs. (NACA RM E50E05) (Declassified from Restricted, 12/7/53)

FLOW THEORY AND EXPERIMENT
(3.7.1)

EFFECT OF BLADE-THICKNESS TAPER ON AXIAL-VELOCITY DISTRIBUTION AT THE LEADING EDGE OF AN ENTRANCE ROTOR-BLADE ROW WITH AXIAL INLET, AND THE INFLUENCE OF THIS DISTRIBUTION ON ALINEMENT OF THE ROTOR BLADE FOR ZERO ANGLE OF ATTACK. John D. Stanitz. August 1953. 33p. diagrs. (NACA TN 2986)

LINEARIZED POTENTIAL THEORY OF PROPELLER INDUCTION IN A COMPRESSIBLE FLOW. Robert E. Davidson. September 1953. 47p. diagrs., 5 tabs. (NACA TN 2983)

AXIAL FLOW
(3.7.1.1)

RELATION OF NOZZLE-BLADE AND TURBINE-BUCKET TEMPERATURES TO GAS TEMPERATURES IN A TURBOJET ENGINE. J. Elmo Farmer. April 30, 1948. 37p. diagrs., photos. (NACA RM E7L12) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. III - ANALYSIS OF TURBINE PERFORMANCE AND EFFECT OF TAIL-PIPE DESIGN ON ENGINE PERFORMANCE. Richard P. Krebs and Frederick C. Foshag. August 26, 1948. 27p. diagrs., photo. (NACA RM E8G02b) (Declassified from Restricted, 12/14/53)

EFFECT OF PRESSURE RATIO AND INLET PRESSURE ON PERFORMANCE OF EXPERIMENTAL GAS TURBINE AT INLET TEMPERATURE OF 800° R. Robert C. Kohl and Robert G. Larkin. November 22, 1948. 7p. diagrs. (NACA RM E8I03) (Declassified from Restricted, 12/14/53)

SOME EFFECTS OF STATOR CONE ANGLE AND BLADE-TIP LEAKAGE ON 40-PERCENT-REACTION TURBINE HAVING ROTOR-BLADE CAPS. Robert E. English, Robert J. McCready and John S. McCarthy. March 23, 1949. 28p. diagrs., photo. (NACA RM E8I21) (Declassified from Restricted, 12/14/53)

TURBINE-ROTOR-BLADE DESIGNS BASED ON ONE-DIMENSIONAL-FLOW THEORY. I - PERFORMANCE OF SINGLE-STAGE TURBINE HAVING 40-PERCENT REACTION. Robert E. English and Cavour H. Hauser. June 10, 1949. 31p. diagrs., photo. (NACA RM E9C15) (Declassified from Restricted, 12/14/53)

APPLICATION OF BLADE COOLING TO GAS TURBINES. Herman H. Ellerbrock, Jr. and Louis J. Schafer, Jr. May 31, 1950. 102p. diagrs., photos. (NACA RM E50A04) (Declassified from Restricted, 12/11/53)

PERFORMANCE OF A CASCADE IN AN ANNULAR VORTEX-GENERATING TUNNEL OVER RANGE OF REYNOLDS NUMBERS. Sidney Thurston and Ralph E. Brunk. September 1951. 33p. diagrs. (NACA RM E51G30)

EXPERIMENTAL INVESTIGATION OF FLOW IN AN ANNULAR CASCADE OF TURBINE NOZZLE BLADES OF CONSTANT DISCHARGE ANGLE. Milton G. Kofskey, Harold E. Rohlik and Daniel E. Monroe. March 1952. 28p. diagrs., photos. (NACA RM E52A09)

Axial Flow Theory and Experiment (Cont.)

APPLICATION OF A CHANNEL DESIGN METHOD TO HIGH-SOLIDITY CASCADES AND TESTS OF AN IMPULSE CASCADE WITH 90° OF TURNING. John D. Stanitz and Leonard J. Sheldrake. 1953. ii, 20p. diagrs., photos., 2 tabs. (NACA Rept. 1116. Formerly TN 2652)

ONE-DIMENSIONAL ANALYSIS OF CHOKED-FLOW TURBINES. Robert E. English and Richard H. Cavicchi. 1953. ii, 18p. diagrs. (NACA Rept. 1127. Formerly TN 2810)

COMPARISON OF SECONDARY FLOWS AND BOUNDARY-LAYER ACCUMULATIONS IN SEVERAL TURBINE NOZZLES. Milton G. Kofskey, Hubert W. Allen and Howard Z. Herzig. August 1953. 58p. diagrs., photos., 3 tabs. (NACA TN 2989)

RADIAL FLOW (3.7.1.2)

A NOTE ON SECONDARY FLOW IN ROTATING RADIAL CHANNELS. James J. Kramer and John D. Stanitz. October 1953. 33p. diagrs. (NACA TN 3013)

MIXED FLOW (3.7.1.3)

ANALYTICAL INVESTIGATION OF FLOW THROUGH HIGH-SPEED MIXED-FLOW TURBINE. Warner L. Stewart. October 1951. 22p. diagrs., photo. (NACA RM E51H06)

APPLICATION OF A CHARACTERISTIC BLADE-TO-BLADE SOLUTION TO FLOW IN A SUPERSONIC ROTOR WITH VARYING STREAM-FILAMENT THICKNESS. Eleanor L. Costilow. August 1953. 36p. diagrs., 5 tabs. (NACA TN 2992)

COOLING (3.7.2)

INVESTIGATION OF HIGH-TEMPERATURE OPERATION OF LIQUID-COOLED GAS TURBINES. I - TURBINE WHEEL OF ALUMINUM ALLOY, A HIGH-CONDUCTIVITY NONSTRATEGIC MATERIAL. Harry Kottas and Bob W. Sheflin. July 22, 1948. 15p. diagrs., photos., tab. (NACA RM E8D12) (Declassified from Restricted, 12/14/53)

DETERMINATION OF AVERAGE HEAT-TRANSFER COEFFICIENTS FOR A CASCADE OF SYMMETRICAL IMPULSE TURBINE BLADES. I - HEAT TRANSFER FROM BLADES TO COLD AIR. Gene L. Meyer. November 10, 1948. 41p. diagrs., photos. (NACA RM E8H12) (Declassified from Restricted, 12/14/53)

APPLICATION OF BLADE COOLING TO GAS TURBINES. Herman H. Ellerbrock, Jr. and Louis J. Schafer, Jr. May 31, 1950. 102p. diagrs., photos. (NACA RM E50A04) (Declassified from Restricted, 12/11/53)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. II - METHODS FOR DETERMINING COOLING-AIR-FLOW CHARACTERISTICS. Herman H. Ellerbrock, Jr. June 7, 1950. 20p. diagrs. (NACA RM E50A06) (Declassified from Restricted, 12/11/53)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. I - METHODS FOR DETERMINING HEAT-TRANSFER CHARACTERISTICS. Herman H. Ellerbrock, Jr. and Robert R. Ziemer. June 12, 1950. 48p. diagrs. (NACA RM E50A05) (Declassified from Restricted, 12/11/53)

NUMERICAL SOLUTION OF EQUATIONS FOR ONE-DIMENSIONAL GAS FLOW IN ROTATING COOLANT PASSAGES. W. Byron Brown and Richard J. Rossbach. June 26, 1950. 119p. diagrs., tabs. (NACA RM E50E04) (Declassified from Restricted, 12/11/53)

HEAT-TRANSFER AND OPERATING CHARACTERISTICS OF ALUMINUM FORCED-CONVECTION AND STAINLESS-STEEL NATURAL-CONVECTION WATER-COOLED SINGLE-STAGE TURBINES. John C. Freche and A. J. Diaguila. June 30, 1950. 48p. diagrs., photo., 2 tabs. (NACA RM E50D03a) (Declassified from Restricted, 12/11/53)

COMPARISON OF OUTSIDE-SURFACE HEAT-TRANSFER COEFFICIENTS FOR CASCADES OF TURBINE BLADES. James E. Hubbartt. July 17, 1950. 30p. diagrs., tab. (NACA RM E50C28) (Declassified from Restricted, 12/11/53)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. III - METHODS FOR DETERMINING POWER AND EFFICIENCY. Herman H. Ellerbrock, Jr. and Robert R. Ziemer. August 2, 1950. 55p. diagrs. (NACA RM E50E18) (Declassified from Restricted, 12/11/53)

PRELIMINARY ANALYSIS OF EFFECTS OF AIR COOLING TURBINE BLADES ON TURBOJET-ENGINE PERFORMANCE. Wilson B. Schramm, Alfred J. Nachtigall and Vernon L. Arne. August 2, 1950. 34p. diagrs., tab. (NACA RM E50E22) (Declassified from Restricted, 12/11/53)

EXTENSION OF BOUNDARY-LAYER HEAT-TRANSFER THEORY TO COOLED TURBINE BLADES. W. Byron Brown and Patrick L. Donoughe. August 11, 1950. 51p. diagrs., tab. (NACA RM E50F02) (Declassified from Restricted, 12/11/53)

ANALYTICAL DETERMINATION OF LOCAL SURFACE HEAT-TRANSFER COEFFICIENTS FOR COOLED TURBINE BLADES FROM MEASURED METAL TEMPERATURES. W. Byron Brown and Jack B. Esgar. August 11, 1950. 66p. diagrs. (NACA RM E50F09) (Declassified from Restricted, 12/11/53)

Cooling (Cont.)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. II - ROTOR BLADES WITH 15 FINS IN COOLING-AIR PASSAGES. Robert O. Hickel and Herman H. Ellerbrock, Jr. November 20, 1950. 56p. diagrs., photos., 3 tabs. (NACA RM E50I14) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. III - ROTOR BLADES WITH 34 STEEL TUBES IN COOLING-AIR PASSAGES. Robert O. Hickel and Gordon T. Smith. December 11, 1950. 39p. diagrs., photos., 2 tabs. (NACA RM E50J06) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. I - ROTOR BLADES WITH 10 TUBES IN COOLING-AIR PASSAGES. Herman H. Ellerbrock, Jr. and Francis S. Stepka. December 12, 1950. 76p. diagrs., photos., 2 tabs. (NACA RM E50I04) (Declassified from Restricted, 12/11/53)

DETERMINATION OF GAS-TO-BLADE CONVECTION HEAT-TRANSFER COEFFICIENTS ON A FORCED-CONVECTION, WATER-COOLED SINGLE-STAGE ALUMINUM TURBINE. John C. Freche and Eugene F. Schum. January 3, 1951. 17p. diagrs., tab. (NACA RM E50J23) (Declassified from Restricted, 12/11/53)

SURVEY OF ADVANTAGES AND PROBLEMS ASSOCIATED WITH TRANSPIRATION COOLING AND FILM COOLING OF GAS-TURBINE BLADES. E. R. G. Eckert and Jack B. Esgar. February 12, 1951. 39p. diagrs. (NACA RM E50K15) (Declassified from Restricted, 12/11/53)

AVERAGE OUTSIDE-SURFACE HEAT-TRANSFER COEFFICIENTS AND VELOCITY DISTRIBUTIONS FOR HEATED AND COOLED IMPULSE TURBINE BLADES IN STATIC CASCADES. James E. Hubbartt and Eugene F. Schum. March 9, 1951. 35p. diagrs., photos. (NACA RM E50L20) (Declassified from Restricted, 12/11/53)

A SUMMARY OF DESIGN INFORMATION FOR WATER-COOLED TURBINES. John C. Freche. March 9, 1951. 26p. diagrs. (NACA RM E51A03) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. V - ROTOR BLADES WITH SPLIT TRAILING EDGES. Gordon T. Smith and Robert O. Hickel. April 2, 1951. 17p. diagrs., tab. (NACA RM E51A22) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. IV - EFFECTS OF SPECIAL LEADING- AND TRAILING-EDGE MODIFICATIONS ON BLADE TEMPERATURE. Herman H. Ellerbrock, Jr., Charles F. Zalabak and Gordon T. Smith. April 13, 1951. 71p. diagrs., photos., 3 tabs. (NACA RM E51A19) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. VI - CONDUCTION AND FILM COOLING OF LEADING AND TRAILING EDGES OF ROTOR BLADES. Vernon L. Arne and Jack B. Esgar. May 18, 1951. 51p. diagrs., 3 tabs. (NACA RM E51C29) (Declassified from Restricted, 12/11/53)

DETERMINATION OF BLADE-TO-COOLANT HEAT-TRANSFER COEFFICIENTS ON A FORCED-CONVECTION, WATER-COOLED, SINGLE-STAGE TURBINE. John C. Freche and Eugene F. Schum. July 1951. 25p. diagrs., 2 tabs. (NACA RM E51E18)

CALCULATED EFFECTS OF TURBINE ROTOR-BLADE COOLING-AIR FLOW, ALTITUDE, AND COMPRESSOR BLEED POINT ON PERFORMANCE OF A TURBOJET ENGINE. Vernon L. Arne and Alfred J. Nachtigall. August 1951. 24p. diagrs., 2 tabs. (NACA RM E51E24)

ANALYTICAL INVESTIGATION OF TWO LIQUID COOLING SYSTEMS FOR TURBINE BLADES. Thomas W. Jackson and John N. B. Livingood. August 1951. 27p. diagrs. (NACA RM E51F04)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. VII - ROTOR-BLADE FABRICATION PROCEDURES. Roger A. Long and Jack B. Esgar. September 1951. 30p. diagrs., photos. (NACA RM E51E23)

CALCULATIONS OF LAMINAR HEAT TRANSFER AROUND CYLINDERS OF ARBITRARY CROSS SECTION AND TRANSPIRATION-COOLED WALLS WITH APPLICATION TO TURBINE BLADE COOLING. E. R. G. Eckert and John N. B. Livingood. September 1951. 57p. diagrs., 2 tabs. (NACA RM E51F22)

DETERMINATION AND USE OF THE LOCAL RECOVERY FACTOR FOR CALCULATING THE EFFECTIVE GAS TEMPERATURE FOR TURBINE BLADES. Jack B. Esgar and Alfred L. Lea. September 1951. 30p. diagrs., photos. (NACA RM E51G10)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADE IN TURBOJET ENGINE. VIII - ROTOR BLADES WITH CAPPED LEADING EDGES. Gordon T. Smith and Robert O. Hickel. October 1951. 23p. diagrs., tab. (NACA RM E51H14)

BLADE-TO-COOLANT HEAT-TRANSFER RESULTS AND OPERATING DATA FROM A NATURAL-CONVECTION WATER-COOLED SINGLE-STAGE TURBINE. Anthony J. Diaguila and John C. Freche. November 1951. 22p. diagrs., tab. (NACA RM E51I17)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. IX - EVALUATION OF THE DURABILITY OF NONCRITICAL ROTOR BLADES IN ENGINE OPERATION. Francis S. Stepka and Robert O. Hickel. December 1951. 26p. diagrs., photos., 4 tabs. (NACA RM E51J10)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. I - EXPERIMENTAL DISK TEMPERATURE DISTRIBUTION IN MODIFIED J33 SPLIT-DISK ROTOR AT SPEEDS UP TO 6000 RPM. Wilson B. Schramm and Robert R. Ziemer. January 1952. 37p. diagrs., photos., 2 tabs. (NACA RM E51I11)

Cooling (Cont.)

EXPERIMENTAL INVESTIGATION OF COOLANT-FLOW CHARACTERISTICS OF A SINTERED POROUS TURBINE BLADE. Edward R. Bartoo, Louis J. Schafer, Jr. and Hadley T. Richards. February 1952. 28p. diagrs., photos. (NACA RM E51K02)

EXPERIMENTAL INVESTIGATION OF THE HEAT-TRANSFER CHARACTERISTICS OF AN AIR-COOLED SINTERED POROUS TURBINE BLADE. Louis J. Schafer, Jr., Edward R. Bartoo and Hadley T. Richards. February 1952. 33p. diagrs., photos. (NACA RM E51K08)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. X - ENDURANCE EVALUATION OF SEVERAL TUBE-FILLED ROTOR BLADES. Jack B. Esgar and John L. Clure. May 1952. 45p. diagrs., photos., 5 tabs. (NACA RM E52B13)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. III- EXPERIMENTAL COOLING-AIR IMPELLER PERFORMANCE AND TURBINE ROTOR TEMPERATURES IN MODIFIED J33 SPLIT-DISK ROTOR UP TO SPEEDS OF 10,000 RPM. Alfred J. Nachtigall, Charles F. Zalabak and Robert R. Ziemer. May 1952. 42p. diagrs., photos., 3 tabs. (NACA RM E52C12)

PRESSURE DROP IN COOLANT PASSAGES OF TWO AIR-COOLED TURBINE-BLADE CONFIGURATIONS. W. Byron Brown and Henry O. Slone. June 1952. 57p. diagrs., photos., tab. (NACA RM E52D01)

COMPARISON OF CALCULATED AND EXPERIMENTAL TEMPERATURES OF WATER-COOLED TURBINE BLADES. Eugene F. Schum, John C. Freche and William J. Stelpflug. July 1952. 36p. diagrs., 3 tabs. (NACA RM E52D21)

EXPERIMENTAL INVESTIGATION OF FREE-CONVECTION HEAT TRANSFER IN VERTICAL TUBE AT LARGE GRASHOF NUMBERS. E. R. G. Eckert and A. J. Diaguila. August 1952. 37p. diagrs., photos., tab. (NACA RM E52F30)

METHOD FOR CALCULATION OF LAMINAR HEAT TRANSFER IN AIR FLOW AROUND CYLINDERS OF ARBITRARY CROSS SECTION (INCLUDING LARGE TEMPERATURE DIFFERENCES AND TRANSPIRATION COOLING). E. R. G. Eckert and John N. B. Livingood. 1953. ii, 29p. diagrs. (NACA Rept. 1118. Formerly TN 2733)

EXPERIMENTS ON MIXED-FREE- AND -FORCED-CONVECTIVE HEAT TRANSFER CONNECTED WITH TURBULENT FLOW THROUGH A SHORT TUBE. E. R. G. Eckert, Anthony J. Diaguila and Arthur N. Curren. July 1953. 59p. diagrs., photo. (NACA TN 2974)

COMPARISON OF EFFECTIVENESS OF CONVECTION-, TRANSPIRATION-, AND FILM-COOLING METHODS WITH AIR AS COOLANT. E. R. G. Eckert and John N. B. Livingood. October 1953. 52p. diagrs. (NACA TN 3010)

USE OF ELECTRIC ANALOGS FOR CALCULATION OF TEMPERATURE DISTRIBUTION OF COOLED TURBINE BLADES. Herman H. Ellerbrock, Jr., Eugene F. Schum and Alfred J. Nachtigall. December 1953. 116p. diagrs., photos., 6 tabs. (NACA TN 3060)

COMBINED NATURAL- AND FORCED-CONVECTION LAMINAR FLOW AND HEAT TRANSFER OF FLUIDS WITH AND WITHOUT HEAT SOURCES IN CHANNELS WITH LINEARLY VARYING WALL TEMPERATURES. Simon Ostrach. April 1954. 74p. diagrs., 2 tabs. (NACA TN 3141)

STRESS AND VIBRATION (3.7.3)

VIBRATION OF TURBINE BLADES IN A TURBOJET ENGINE DURING OPERATION. W. C. Morgan, R. H. Kemp and S. S. Manson. April 22, 1948. 17p. diagrs., photos. (NACA RM E7L18) (Declassified from Restricted, 12/14/53)

CYCLIC ENGINE OPERATION OF CAST VITALLIUM TURBINE BLADES AT AN EXHAUST-CONE GAS TEMPERATURE OF 1440 ± 20° F. Charles Yaker and Floyd B. Garrett. September 19, 1949. 41p. diagrs., photos., 4 tabs. (NACA RM E9G13) (Declassified from Restricted, 12/14/53)

VIBRATIONAL MODES OF SEVERAL HOLLOW TURBINE BLADES AND OF SOLID TURBINE BLADE OF SIMILAR AERODYNAMIC DESIGN. R. H. Kemp and J. Shifman. October 3, 1949. 17p. diagrs., photos. (NACA RM E9G25) (Declassified from Restricted, 12/14/53)

VIBRATION OF LOOSELY MOUNTED TURBINE BLADES DURING SERVICE OPERATION OF A TURBOJET ENGINE WITH CENTRIFUGAL COMPRESSOR AND STRAIGHT-FLOW COMBUSTION CHAMBERS. W. C. Morgan, R. H. Kemp and S. S. Manson. November 3, 1949. 18p. diagrs., photos. (NACA RM E9I07) (Declassified from Restricted, 12/14/53)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. II - MECHANICAL DESIGN, STRESS ANALYSIS, AND BURST TEST OF MODIFIED J33 SPLIT-DISK ROTOR. Richard H. Kemp and Merland L. Moseson. January 1952. 46p. diagrs., photos., tab. (NACA RM E51J03)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. III- EXPERIMENTAL COOLING-AIR IMPELLER PERFORMANCE AND TURBINE ROTOR TEMPERATURES IN MODIFIED J33 SPLIT-DISK ROTOR UP TO SPEEDS OF 10,000 RPM. Alfred J. Nachtigall, Charles F. Zalabak and Robert R. Ziemer. May 1952. 42p. diagrs., photos., 3 tabs. (NACA RM E52C12)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF CASCADING ON THE OSCILLATING LIFT FORCE OF AN AIRFOIL VIBRATED IN BENDING. Donald F. Johnson and Alexander Mendelson. September 1953. 15p. diagrs., photos. (NACA RM E53F29)

MATCHING

(3.7.4)

ANALYTICAL INVESTIGATION OF TURBINES WITH ADJUSTABLE STATOR BLADES AND EFFECT OF THESE TURBINES ON JET-ENGINE PERFORMANCE. David H. Silvern and William R. Slivka. July 17, 1950. 51p. diagrs. (NACA RM E50E05) (Declassified from Restricted, 12/7/53)

A THERMODYNAMIC STUDY OF THE TURBINE-PROPELLER ENGINE. Benjamin Pinkel and Irving M. Karp. 1953. ii, 36p. diagrs. (NACA Rept. 1114. Formerly TN 2653)

Friction and Lubrication

(3.8)

THEORY AND EXPERIMENT

(3.8.1)

COMPARISON OF OPERATING CHARACTERISTICS OF FOUR EXPERIMENTAL AND TWO CONVENTIONAL 75-MILLIMETER-BORE CYLINDRICAL-ROLLER BEARINGS AT HIGH SPEEDS. William J. Anderson, E. Fred Macks and Zolton N. Nemeth. September 1953. 27p. diagrs., 4 tabs. (NACA TN 3001)

EFFECT OF BRONZE AND NODULAR IRON CAGE MATERIALS ON CAGE SLIP AND OTHER PERFORMANCE CHARACTERISTICS OF 75-MILLIMETER-BORE CYLINDRICAL-ROLLER BEARINGS AT DN VALUES TO 2 x 10^6. William J. Anderson, E. Fred Macks and Zolton N. Nemeth. September 1953. 24p. diagrs., 6 tabs. (NACA TN 3002)

INVESTIGATION OF 75-MILLIMETER-BORE DEEP-GROOVE BALL BEARINGS UNDER RADIAL LOAD AT HIGH SPEEDS. II - OIL INLET TEMPERATURE, VISCOSITY, AND GENERALIZED COOLING CORRELATION. Zolton N. Nemeth, E. Fred Macks and William J. Anderson. September 1953. 33p. diagrs., photos., 2 tabs. (NACA TN 3003)

COEFFICIENT OF FRICTION AND DAMAGE TO CONTACT AREA DURING THE EARLY STAGES OF FRETTING. I - GLASS, COPPER, OR STEEL AGAINST COPPER. Douglas Godfrey and John M. Bailey. September 1953. 23p. diagrs., photos., 2 tabs. (NACA TN 3011)

FRICTION AND WEAR INVESTIGATION OF MOLYBDENUM DISULFIDE. I - EFFECT OF MOISTURE. Marshall B. Peterson and Robert L. Johnson. December 1953. 28p. diagrs., photos. (NACA TN 3055)

FRICTION AND WEAR INVESTIGATION OF MOLYBDENUM DISULFIDE. II - EFFECTS OF CONTAMINANTS AND METHOD OF APPLICATION. Marshall B. Peterson and Robert L. Johnson. March 1954. 19p. diagrs., photos., tab. (NACA TN 3111)

TRENDS OF ROLLING-CONTACT BEARINGS AS APPLIED TO AIRCRAFT GAS-TURBINE ENGINES. (Papers presented at the SAE Summer Meeting, Atlantic City, N.J., 1952). Panel on High-Speed Rolling-Contact Bearings. Appendix A. PROBLEMS PERTAINING TO HIGH-SPEED ROLLING-CONTACT AIRCRAFT BEARINGS OF CONCERN TO THE BEARING INDUSTRY. Daniel Gurney, Marlin-Rockwell Corp. Appendix B. PROBLEMS PERTAINING TO HIGH-SPEED ROLLING-CONTACT BEARINGS IN AIRCRAFT TURBINE ENGINES OF CONCERN TO THE MILITARY. C. M. Michaels, Wright Air Development Center. Appendix C. ROLLING-CONTACT BEARINGS AS APPLIED TO AIRCRAFT GAS TURBINES FROM THE ENGINE MANUFACTURER'S POINT OF VIEW. Stephen Drabek, General Electric Co. Appendix D. NEW DEVELOPMENTS IN HIGH-SPEED ROLLING-CONTACT BEARINGS. Frank W. Wellons, SKF Industries, Inc. Appendix E. BASIC FRICTION AND WEAR STUDIES OF ROLLING-CONTACT-BEARING CAGE MATERIALS. Robert L. Johnson, Max A. Swikert and Edmond E. Bisson. Appendix F. PRESENT STATUS OF RESEARCH KNOWLEDGE IN THE FIELD OF HIGH-SPEED ROLLING-CONTACT BEARINGS. E. F. Macks. April 1954. (ii), 62p. diagrs., photos. (NACA TN 3110)

COEFFICIENT OF FRICTION AND DAMAGE TO CONTACT AREA DURING THE EARLY STAGES OF FRETTING. II - STEEL, IRON, IRON OXIDE, AND GLASS COMBINATIONS. John M. Bailey and Douglas Godfrey. April 1954. 26p. diagrs., 4 tabs. (NACA TN 3144)

HYDRODYNAMIC THEORY

(3.8.1.1)

PRELIMINARY INVESTIGATION OF MOLYBDENUM DISULFIDE - AIR-MIST LUBRICATION FOR ROLLER BEARINGS OPERATING TO DN VALUES OF 1 x 10^6 AND BALL BEARINGS OPERATING TO TEMPERATURES OF 1000° F. E. F. Macks, Z. N. Nemeth and W. J. Anderson. October 1951. 38p. diagrs., photos., 2 tabs. (NACA RM E51G31)

CHEMISTRY OF LUBRICATION

(3.8.1.2)

REVIEW OF CURRENT AND ANTICIPATED LUBRICANT PROBLEMS IN TURBOJET ENGINES. NACA Subcommittee on Lubrication and Wear. Appendix A: THE DEVELOPMENT OF LUBRICANTS FOR EXTREME TEMPERATURE OPERATIONS FOR CURRENT AND PROJECTED TURBINE-POWERED AIRCRAFT ENGINES. C. M. Murphy and W. A. Zisman. Appendix B: AIRCRAFT TURBINE LUBRICANTS FOR MILITARY USE. C. C. Singleterry. Appendix C: BEARING PROBLEMS IN CURRENT AND PROJECTED TURBO POWER PLANT. C. J. McDowall. Appendix D: INVESTIGATIONS OF ROLLING BEARINGS AT SKF INDUSTRIES, INC. H. Styri. Appendix E: LUBRICANTS FOR OPERATION OF AIRCRAFT GAS TURBINE ENGINES OVER WIDE TEMPERATURE RANGES. NACA Lewis Flight Propulsion Laboratory Staff. April 20, 1951. 46p. diagrs., 4 tabs. (NACA RM 51D20) (Declassified from Restricted, 12/11/53)

Chemistry of Lubrication - Theory and Experiment (Cont.)

PRELIMINARY INVESTIGATION OF MOLYBDENUM DISULFIDE - AIR-MIST LUBRICATION FOR ROLLER BEARINGS OPERATING TO DN VALUES OF 1 x 10^6 AND BALL BEARINGS OPERATING TO TEMPERATURES OF 1000° F. E. F. Macks, Z. N. Nemeth and W. J. Anderson. October 1951. 38p. diagrs., photos., 2 tabs. (NACA RM E51G31)

FRICTION AND WEAR INVESTIGATION OF MOLYBDENUM DISULFIDE. I - EFFECT OF MOISTURE. Marshall B. Peterson and Robert L. Johnson. December 1953. 28p. diagrs., photos. (NACA TN 3055)

FRICTION AND WEAR INVESTIGATION OF MOLYBDENUM DISULFIDE. II - EFFECTS OF CONTAMINANTS AND METHOD OF APPLICATION. Marshall B. Peterson and Robert L. Johnson. March 1954. 19p. diagrs., photos., tab. (NACA TN 3111)

SURFACE CONDITIONS (3.8.1.3)

A FUNDAMENTAL INVESTIGATION OF FRETTING CORROSION. H. H. Uhlig, I. Ming Feng, W. D. Tierney, and A. McClellan, Massachusetts Institute of Technology. December 1953. 52p. diagrs., photos., 2 tabs. (NACA TN 3029)

SLIDING CONTACT SURFACES (3.8.2)

COEFFICIENT OF FRICTION AND DAMAGE TO CONTACT AREA DURING THE EARLY STAGES OF FRETTING. I - GLASS, COPPER, OR STEEL AGAINST COPPER. Douglas Godfrey and John M. Bailey. September 1953. 23p. diagrs., photos., 2 tabs. (NACA TN 3011)

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COEFFICIENT OF FRICTION AND DAMAGE TO CONTACT AREA DURING THE EARLY STAGES OF FRETTING. II - STEEL, IRON, IRON OXIDE, AND GLASS COMBINATIONS. John M. Bailey and Douglas Godfrey. April 1954. 26p. diagrs., 4 tabs. (NACA TN 3144)

CYLINDER AND PISTON MECHANISMS (3.8.2.2)

DYNAMICS OF MECHANICAL FEEDBACK-TYPE HYDRAULIC SERVOMOTORS UNDER INERTIA LOADS. Harold Gold, Edward W. Otto and Victor L. Ransom. 1953. ii, 21p. diagrs., photos. (NACA Rept. 1125. Formerly TN 2767)

ROLLING CONTACT SURFACES (3.8.3)

REVIEW OF CURRENT AND ANTICIPATED LUBRICANT PROBLEMS IN TURBOJET ENGINES. NACA Subcommittee on Lubrication and Wear. Appendix A: THE DEVELOPMENT OF LUBRICANTS FOR EXTREME TEMPERATURE OPERATIONS FOR CURRENT AND PROJECTED TURBINE-POWERED AIRCRAFT ENGINES. C. M. Murphy and W. A. Zisman. Appendix B: AIRCRAFT TURBINE LUBRICANTS FOR MILITARY USE. C. C. Singleterry. Appendix C: BEARING PROBLEMS IN CURRENT AND PROJECTED TURBO POWER PLANT. C. J. McDowall. Appendix D: INVESTIGATIONS OF ROLLING BEARINGS AT SKF INDUSTRIES, INC. H. Styri. Appendix E: LUBRICANTS FOR OPERATION OF AIRCRAFT GAS TURBINE ENGINES OVER WIDE TEMPERATURE RANGES. NACA Lewis Flight Propulsion Laboratory Staff. April 20, 1951. 46p. diagrs., 4 tabs. (NACA RM 51D20) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF 75-MILLIMETER-BORE DEEP-GROOVE BALL BEARINGS UNDER RADIAL LOAD AT HIGH SPEEDS. II - OIL INLET TEMPERATURE, VISCOSITY, AND GENERALIZED COOLING CORRELATION. Zolton N. Nemeth, E. Fred Macks and William J. Anderson. September 1953. 33p. diagrs., photos., 2 tabs. (NACA TN 3003)

ANTIFRICTION BEARINGS (3.8.3.1)

PRELIMINARY INVESTIGATION OF MOLYBDENUM DISULFIDE - AIR-MIST LUBRICATION FOR ROLLER BEARINGS OPERATING TO DN VALUES OF 1 x 10^6 AND BALL BEARINGS OPERATING TO TEMPERATURES OF 1000° F. E. F. Macks, Z. N. Nemeth and W. J. Anderson. October 1951. 38p. diagrs., photos., 2 tabs. (NACA RM E51G31)

COMPARISON OF OPERATING CHARACTERISTICS OF FOUR EXPERIMENTAL AND TWO CONVENTIONAL 75-MILLIMETER-BORE CYLINDRICAL-ROLLER BEARINGS AT HIGH SPEEDS. William J. Anderson, E. Fred Macks and Zolton N. Nemeth. September 1953. 27p. diagrs., 4 tabs. (NACA TN 3001)

EFFECT OF BRONZE AND NODULAR IRON CAGE MATERIALS ON CAGE SLIP AND OTHER PERFORMANCE CHARACTERISTICS OF 75-MILLIMETER-BORE CYLINDRICAL-ROLLER BEARINGS AT DN VALUES TO 2 x 10^6. William J. Anderson, E. Fred Macks and Zolton N. Nemeth. September 1953. 24p. diagrs., 6 tabs. (NACA TN 3002)

INVESTIGATION OF 75-MILLIMETER-BORE DEEP-GROOVE BALL BEARINGS UNDER RADIAL LOAD AT HIGH SPEEDS. II - OIL INLET TEMPERATURE, VISCOSITY, AND GENERALIZED COOLING CORRELATION. Zolton N. Nemeth, E. Fred Macks and William J. Anderson. September 1953. 33p. diagrs., photos., 2 tabs. (NACA TN 3003)

Antifriction Bearings - Rolling Contact Surfaces (Cont.)

TRENDS OF ROLLING-CONTACT BEARINGS AS APPLIED TO AIRCRAFT GAS-TURBINE ENGINES. (Papers presented at the SAE Summer Meeting, Atlantic City, N.J., 1952). Panel on High-Speed Rolling-Contact Bearings. Appendix A. PROBLEMS PERTAINING TO HIGH-SPEED ROLLING-CONTACT AIRCRAFT BEARINGS OF CONCERN TO THE BEARING INDUSTRY. Daniel Gurney, Marlin-Rockwell Corp. Appendix B. PROBLEMS PERTAINING TO HIGH-SPEED ROLLING-CONTACT BEARINGS IN AIRCRAFT TURBINE ENGINES OF CONCERN TO THE MILITARY. C. M. Michaels, Wright Air Development Center. Appendix C. ROLLING-CONTACT BEARINGS AS APPLIED TO AIRCRAFT GAS TURBINES FROM THE ENGINE MANUFACTURER'S POINT OF VIEW. Stephen Drabek, General Electric Co. Appendix D. NEW DEVELOPMENTS IN HIGH-SPEED ROLLING-CONTACT BEARINGS. Frank W. Wellons, SKF Industries, Inc. Appendix E. BASIC FRICTION AND WEAR STUDIES OF ROLLING-CONTACT-BEARING CAGE MATERIALS. Robert L. Johnson, Max A. Swikert and Edmond E. Bisson. Appendix F. PRESENT STATUS OF RESEARCH KNOWLEDGE IN THE FIELD OF HIGH-SPEED ROLLING-CONTACT BEARINGS. E. F. Macks. April 1954. (ii), 62p. diagrs., photos. (NACA TN 3110)

SLIDING AND ROLLING CONTACT SURFACES (3.8.4)

PRELIMINARY INVESTIGATION OF MOLYBDENUM DISULFIDE - AIR-MIST LUBRICATION FOR ROLLER BEARINGS OPERATING TO DN VALUES OF 1×10^6 AND BALL BEARINGS OPERATING TO TEMPERATURES OF 1000° F. E. F. Macks, Z. N. Nemeth and W. J. Anderson. October 1951. 38p. diagrs., photos., 2 tabs. (NACA RM E51G31)

COMPARISON OF OPERATING CHARACTERISTICS OF FOUR EXPERIMENTAL AND TWO CONVENTIONAL 75-MILLIMETER-BORE CYLINDRICAL-ROLLER BEARINGS AT HIGH SPEEDS. William J. Anderson, E. Fred Macks and Zolton N. Nemeth. September 1953. 27p. diagrs., 4 tabs. (NACA TN 3001)

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INVESTIGATION OF 75-MILLIMETER-BORE DEEP-GROOVE BALL BEARINGS UNDER RADIAL LOAD AT HIGH SPEEDS. II - OIL INLET TEMPERATURE, VISCOSITY, AND GENERALIZED COOLING CORRELATION. Zolton N. Nemeth, E. Fred Macks and William J. Anderson. September 1953. 33p. diagrs., photos., 2 tabs. (NACA TN 3003)

TRENDS OF ROLLING-CONTACT BEARINGS AS APPLIED TO AIRCRAFT GAS-TURBINE ENGINES. (Papers presented at the SAE Summer Meeting, Atlantic City, N.J., 1952). Panel on High-Speed Rolling-Contact Bearings. Appendix A. PROBLEMS PERTAINING TO HIGH-SPEED ROLLING-CONTACT AIRCRAFT BEARINGS OF CONCERN TO THE BEARING INDUSTRY. Daniel Gurney, Marlin-Rockwell Corp. Appendix B. PROBLEMS PERTAINING TO HIGH-SPEED ROLLING-CONTACT BEARINGS IN AIRCRAFT TURBINE ENGINES OF CONCERN TO THE MILITARY. C. M. Michaels, Wright Air Development Center. Appendix C. ROLLING-CONTACT BEARINGS AS APPLIED TO AIRCRAFT GAS TURBINES FROM THE ENGINE MANUFACTURER'S POINT OF VIEW. Stephen Drabek, General Electric Co. Appendix D. NEW DEVELOPMENTS IN HIGH-SPEED ROLLING-CONTACT BEARINGS. Frank W. Wellons, SKF Industries, Inc. Appendix E. BASIC FRICTION AND WEAR STUDIES OF ROLLING-CONTACT-BEARING CAGE MATERIALS. Robert L. Johnson, Max A. Swikert and Edmond E. Bisson. Appendix F. PRESENT STATUS OF RESEARCH KNOWLEDGE IN THE FIELD OF HIGH-SPEED ROLLING-CONTACT BEARINGS. E. F. Macks. April 1954. (ii), 62p. diagrs., photos. (NACA TN 3110)

LUBRICANTS (3.8.5)

REVIEW OF CURRENT AND ANTICIPATED LUBRICANT PROBLEMS IN TURBOJET ENGINES. NACA Subcommittee on Lubrication and Wear. Appendix A: THE DEVELOPMENT OF LUBRICANTS FOR EXTREME TEMPERATURE OPERATIONS FOR CURRENT AND PROJECTED TURBINE-POWERED AIRCRAFT ENGINES. C. M. Murphy and W. A. Zisman. Appendix B: AIRCRAFT TURBINE LUBRICANTS FOR MILITARY USE. C. C. Singleterry. Appendix C: BEARING PROBLEMS IN CURRENT AND PROJECTED TURBO POWER PLANT. C. J. McDowall. Appendix D: INVESTIGATIONS OF ROLLING BEARINGS AT SKF INDUSTRIES, INC. H. Styri. Appendix E: LUBRICANTS FOR OPERATION OF AIRCRAFT GAS TURBINE ENGINES OVER WIDE TEMPERATURE RANGES. NACA Lewis Flight Propulsion Laboratory Staff. April 20, 1951. 46p. diagrs., 4 tabs. (NACA RM 51D20) (Declassified from Restricted, 12/11/53)

PRELIMINARY INVESTIGATION OF MOLYBDENUM DISULFIDE - AIR-MIST LUBRICATION FOR ROLLER BEARINGS OPERATING TO DN VALUES OF 1×10^6 AND BALL BEARINGS OPERATING TO TEMPERATURES OF 1000° F. E. F. Macks, Z. N. Nemeth and W. J. Anderson. October 1951. 38p. diagrs., photos., 2 tabs. (NACA RM E51G31)

FRICTION AND WEAR INVESTIGATION OF MOLYBDENUM DISULFIDE. I - EFFECT OF MOISTURE. Marshall B. Peterson and Robert L. Johnson. December 1953. 28p. diagrs., photos. (NACA TN 3055)

LUBRICANTS OF REDUCED FLAMMABILITY. Charles E. Frank, Donald E. Swarts and Kenneth T. Mecklenborg, University of Cincinnati. January 1954. 24p. diagrs., tab. (NACA TN 3117)

FRICTION AND WEAR INVESTIGATION OF MOLYBDENUM DISULFIDE. II - EFFECTS OF CONTAMINANTS AND METHOD OF APPLICATION. Marshall B. Peterson and Robert L. Johnson. March 1954. 19p. diagrs., photos., tab. (NACA TN 3111)

Heat Transfer
(3.9)

INVESTIGATION OF HIGH-TEMPERATURE OPERATION OF LIQUID-COOLED GAS TURBINES. I - TURBINE WHEEL OF ALUMINUM ALLOY, A HIGH-CONDUCTIVITY NONSTRATEGIC MATERIAL. Harry Kottas and Bob W. Sheflin. July 22, 1948. 15p. diagrs., photos., tab. (NACA RM E8D12) (Declassified from Restricted, 12/14/53)

DETERMINATION OF AVERAGE HEAT-TRANSFER COEFFICIENTS FOR A CASCADE OF SYMMETRICAL IMPULSE TURBINE BLADES. I - HEAT TRANSFER FROM BLADES TO COLD AIR. Gene L. Meyer. November 10, 1948. 41p. diagrs., photos. (NACA RM E8H12) (Declassified from Restricted, 12/14/53)

HEAT-TRANSFER AND OPERATING CHARACTERISTICS OF ALUMINUM FORCED-CONVECTION AND STAINLESS-STEEL NATURAL-CONVECTION WATER-COOLED SINGLE-STAGE TURBINES. John C. Freche and A. J. Diaguila. June 30, 1950. 48p. diagrs., photo., 2 tabs. (NACA RM E50D03a) (Declassified from Restricted, 12/11/53)

DETERMINATION OF GAS-TO-BLADE CONVECTION HEAT-TRANSFER COEFFICIENTS ON A FORCED-CONVECTION, WATER-COOLED SINGLE-STAGE ALUMINUM TURBINE. John C. Freche and Eugene F. Schum. January 3, 1951. 17p. diagrs., tab. (NACA RM E50J23) (Declassified from Restricted, 12/11/53)

THERMAL CONDUCTIVITY OF 14 METALS AND ALLOYS UP TO 1100°F. Jerry E. Evans, Jr. March 2, 1951. 15p. diagrs., tab. (NACA RM E50L07) (Declassified from Restricted, 12/11/53)

A SUMMARY OF DESIGN INFORMATION FOR WATER-COOLED TURBINES. John C. Freche. March 9, 1951. 26p. diagrs. (NACA RM E51A03) (Declassified from Restricted, 12/11/53)

DETERMINATION OF BLADE-TO-COOLANT HEAT-TRANSFER COEFFICIENTS ON A FORCED-CONVECTION, WATER-COOLED, SINGLE-STAGE TURBINE. John C. Freche and Eugene F. Schum. July 1951. 25p. diagrs., 2 tabs. (NACA RM E51E18)

DETERMINATION AND USE OF THE LOCAL RECOVERY FACTOR FOR CALCULATING THE EFFECTIVE GAS TEMPERATURE FOR TURBINE BLADES. Jack B. Esgar and Alfred L. Lea. September 1951. 30p. diagrs., photos. (NACA RM E51G10)

BLADE-TO-COOLANT HEAT-TRANSFER RESULTS AND OPERATING DATA FROM A NATURAL-CONVECTION WATER-COOLED SINGLE-STAGE TURBINE. Anthony J. Diaguila and John C. Freche. November 1951. 22p. diagrs., tab. (NACA RM E51I17)

PHYSICAL PROPERTIES OF CONCENTRATED NITRIC ACID. W. L. Sibbitt, C. R. St. Clair, T. R. Bump, P. F. Pagerey, J. P. Kern and D. W. Fyfe, Purdue University. June 1953. 19p. diagrs., 2 tabs. (NACA TN 2970)

TEMPERATURES, THERMAL STRESS, AND SHOCK IN HEAT-GENERATING PLATES OF CONSTANT CONDUCTIVITY AND OF CONDUCTIVITY THAT VARIES LINEARLY WITH TEMPERATURE. S. V. Manson. July 1953. 62p. diagrs. (NACA TN 2988)

MEASUREMENTS OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR AIR FLOWING IN A TUBE OF LENGTH-DIAMETER RATIO OF 15 AT HIGH SURFACE TEMPERATURES. Walter F. Weiland and Warren H. Lowdermilk. July 1953. 19p. diagrs. (NACA RM E53E04)

ANALOGY BETWEEN MASS AND HEAT TRANSFER WITH TURBULENT FLOW. Edmund E. Callaghan. October 1953. 19p. diagrs. (NACA TN 3045)

FLAME QUENCHING BY A VARIABLE-WIDTH RECTANGULAR-SLOT BURNER AS A FUNCTION OF PRESSURE FOR VARIOUS PROPANE-OXYGEN-NITROGEN MIXTURES. Abraham L. Berlad. January 1954. 42p. diagrs., 3 tabs. (NACA RM E53K30)

HEAT TRANSFER, DIFFUSION, AND EVAPORATION. (Wärmeübergang, Diffusion und Verdunstung). Wilhelm Nusselt. March 1954. 37p. diagrs. (NACA TM 1367. Trans. from Zeitschrift für angewandte Mathematik und Mechanik, v. 10, no. 2, April 1930, p. 105-121).

EXPERIMENTAL DETERMINATION OF THERMAL CONDUCTIVITY OF LOW-DENSITY ICE. Willard D. Coles. March 1954. 12p. diagrs., photo. (NACA TN 3143)

COMBINED NATURAL- AND FORCED-CONVECTION LAMINAR FLOW AND HEAT TRANSFER OF FLUIDS WITH AND WITHOUT HEAT SOURCES IN CHANNELS WITH LINEARLY VARYING WALL TEMPERATURES. Simon Ostrach. April 1954. 74p. diagrs., 2 tabs. (NACA TN 3141)

NOTE ON THE AERODYNAMIC HEATING OF AN OSCILLATING SURFACE. Simon Ostrach. April 1954. 12p. (NACA TN 3146)

EFFECT OF CHANNEL GEOMETRY ON THE QUENCHING OF LAMINAR FLAMES. A. L. Berlad and A. E. Potter, Jr. May 1954. 32p. diagrs., tab. (NACA RM E54C05)

THEORY AND EXPERIMENT (3.9.1)

PRELIMINARY ANALYSIS OF PROBLEM OF DETERMINING EXPERIMENTAL PERFORMANCE OF AIR-COOLED TURBINE. I - METHODS FOR DETERMINING HEAT-TRANSFER CHARACTERISTICS. Herman H. Ellerbrock, Jr. and Robert R. Ziemer. June 12, 1950. 48p. diagrs. (NACA RM E50A05) (Declassified from Restricted, 12/11/53)

ANALYTICAL INVESTIGATION OF FLOW AND HEAT TRANSFER IN COOLANT PASSAGES OF FREE-CONVECTION LIQUID-COOLED TURBINES. E. R. G. Eckert and Thomas W. Jackson. July 18, 1950. 45p. diagrs. (NACA RM E50D25) (Declassified from Restricted, 12/11/53)

SURVEY OF ADVANTAGES AND PROBLEMS ASSOCIATED WITH TRANSPIRATION COOLING AND FILM COOLING OF GAS-TURBINE BLADES. E. R. G. Eckert and Jack B. Esgar. February 12, 1951. 39p. diagrs. (NACA RM E50K15) (Declassified from Restricted, 12/11/53)

CALCULATIONS OF LAMINAR HEAT TRANSFER AROUND CYLINDERS OF ARBITRARY CROSS SECTION AND TRANSPIRATION-COOLED WALLS WITH APPLICATION TO TURBINE BLADE COOLING. E. R. G. Eckert and John N. B. Livingood. September 1951. 57p. diagrs., 2 tabs. (NACA RM E51F22)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. X - ENDURANCE EVALUATION OF SEVERAL TUBE-FILLED ROTOR BLADES. Jack B. Esgar and John L. Clure. May 1952. 45p. diagrs., photos., 5 tabs. (NACA RM E52B13)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

EXPERIMENTAL INVESTIGATION OF FREE-CONVECTION HEAT TRANSFER IN VERTICAL TUBE AT LARGE GRASHOF NUMBERS. E. R. G. Eckert and A. J. Diaguila. August 1952. 37p. diagrs., photos., tab. (NACA RM E52F30)

AN ANALYSIS OF LAMINAR FREE-CONVECTION FLOW AND HEAT TRANSFER ABOUT A FLAT PLATE PARALLEL TO THE DIRECTION OF THE GENERATING BODY FORCE. Simon Ostrach. APPENDIX B: NUMERICAL SOLUTION OF SIMPLIFIED BOUNDARY-VALUE PROBLEM. Lynn U. Albers. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1111. Formerly TN 2635)

METHOD FOR CALCULATION OF LAMINAR HEAT TRANSFER IN AIR FLOW AROUND CYLINDERS OF ARBITRARY CROSS SECTION (INCLUDING LARGE TEMPERATURE DIFFERENCES AND TRANSPIRATION COOLING). E. R. G. Eckert and John N. B. Livingood. 1953. ii, 29p. diagrs. (NACA Rept. 1118. Formerly TN 2733)

EXPERIMENTS ON MIXED-FREE- AND -FORCED-CONVECTIVE HEAT TRANSFER CONNECTED WITH TURBULENT FLOW THROUGH A SHORT TUBE. E. R. G. Eckert, Anthony J. Diaguila and Arthur N. Curren. July 1953. 59p. diagrs., photo. (NACA TN 2974)

PRELIMINARY RESULTS OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL SPINNER. U. von Glahn. August 1953. 35p. diagrs., photo., 2 tabs. (NACA RM E53F02)

COMPARISON OF EFFECTIVENESS OF CONVECTION-, TRANSPIRATION-, AND FILM-COOLING METHODS WITH AIR AS COOLANT. E. R. G. Eckert and John N. B. Livingood. October 1953. 52p. diagrs. (NACA TN 3010)

ANALYSIS OF TURBULENT HEAT TRANSFER AND FLOW IN THE ENTRANCE REGIONS OF SMOOTH PASSAGES. Robert G. Deissler. October 1953. 88p. diagrs. (NACA TN 3016)

USE OF ELECTRIC ANALOGS FOR CALCULATION OF TEMPERATURE DISTRIBUTION OF COOLED TURBINE BLADES. Herman H. Ellerbrock, Jr., Eugene F. Schum and Alfred J. Nachtigall. December 1953. 116p. diagrs., photos., 6 tabs. (NACA TN 3060)

MEASUREMENT OF HEAT-TRANSFER AND FRICTION COEFFICIENTS FOR FLOW OF AIR IN NON-CIRCULAR DUCTS AT HIGH SURFACE TEMPERATURES. Warren H. Lowdermilk, Walter F. Weiland, Jr. and John N. B. Livingood. January 1954. 26p. diagrs. (NACA RM E53J07)

ANALYSIS OF TURBULENT HEAT TRANSFER, MASS TRANSFER, AND FRICTION IN SMOOTH TUBES AT HIGH PRANDTL AND SCHMIDT NUMBERS. Robert G. Deissler. May 1954. 53p. diagrs. (NACA TN 3145)

CASCADES (3.9.1.1)

ANALYSIS AND PRELIMINARY INVESTIGATION OF EDDY-CURRENT HEATING FOR ICING PROTECTION OF AXIAL-FLOW-COMPRESSOR BLADES. Thomas Dallas and C. Ellisman. August 8, 1949. 66p. diagrs., photos., tab. (NACA RM E9E06) (Declassified from Restricted, 12/14/53)

APPLICATION OF BLADE COOLING TO GAS TURBINES. Herman H. Ellerbrock, Jr. and Louis J. Schafer, Jr. May 31, 1950. 102p. diagrs., photos. (NACA RM E50A04) (Declassified from Restricted, 12/11/53)

COMPARISON OF OUTSIDE-SURFACE HEAT-TRANSFER COEFFICIENTS FOR CASCADES OF TURBINE BLADES. James E. Hubbartt. July 17, 1950. 30p. diagrs., tab. (NACA RM E50C28) (Declassified from Restricted, 12/11/53)

Cascades - Theory and Experiment (Cont.)

EXTENSION OF BOUNDARY-LAYER HEAT-TRANSFER THEORY TO COOLED TURBINE BLADES. W. Byron Brown and Patrick L. Donoughe. August 11, 1950. 51p. diagrs., tab. (NACA RM E50F02) (Declassified from Restricted, 12/11/53)

ANALYTICAL DETERMINATION OF LOCAL SURFACE HEAT-TRANSFER COEFFICIENTS FOR COOLED TURBINE BLADES FROM MEASURED METAL TEMPERATURES. W. Byron Brown and Jack B. Esgar. August 11, 1950. 66p. diagrs. (NACA RM E50F09) (Declassified from Restricted, 12/11/53)

SURVEY OF ADVANTAGES AND PROBLEMS ASSOCIATED WITH TRANSPIRATION COOLING AND FILM COOLING OF GAS-TURBINE BLADES. E. R. G. Eckert and Jack B. Esgar. February 12, 1951. 39p. diagrs. (NACA RM E50K15) (Declassified from Restricted, 12/11/53)

AVERAGE OUTSIDE-SURFACE HEAT-TRANSFER COEFFICIENTS AND VELOCITY DISTRIBUTIONS FOR HEATED AND COOLED IMPULSE TURBINE BLADES IN STATIC CASCADES. James E. Hubbartt and Eugene F. Schum. March 9, 1951. 35p. diagrs., photos. (NACA RM E50L20) (Declassified from Restricted, 12/11/53)

DETERMINATION AND USE OF THE LOCAL RECOVERY FACTOR FOR CALCULATING THE EFFECTIVE GAS TEMPERATURE FOR TURBINE BLADES. Jack B. Esgar and Alfred L. Lea. September 1951. 30p. diagrs., photos. (NACA RM E51G10)

EXPERIMENTAL INVESTIGATION OF COOLANT-FLOW CHARACTERISTICS OF A SINTERED POROUS TURBINE BLADE. Edward R. Bartoo, Louis J. Schafer, Jr. and Hadley T. Richards. February 1952. 28p. diagrs., photos. (NACA RM E51K02)

EXPERIMENTAL INVESTIGATION OF THE HEAT-TRANSFER CHARACTERISTICS OF AN AIR-COOLED SINTERED POROUS TURBINE BLADE. Louis J. Schafer, Jr., Edward R. Bartoo and Hadley T. Richards. February 1952. 33p. diagrs., photos. (NACA RM E51K08)

PRESSURE DROP IN COOLANT PASSAGES OF TWO AIR-COOLED TURBINE-BLADE CONFIGURATIONS. W. Byron Brown and Henry O. Slone. June 1952. 57p. diagrs., photos., tab. (NACA RM E52D01)

HEAT EXCHANGERS (3.9.2)

EXPERIMENTAL DETERMINATION OF LOCAL AND MEAN COEFFICIENTS OF HEAT TRANSFER FOR TURBULENT FLOW IN PIPES. (Eksperimental'noe Opredelenie Lokal'nykh i Srednikh Koeffitsientov Teplootdachi Pri *Turbulentnom Techenii Zhidkosti v Trubakh*). I. T. Aladyev. February 1954. 18p. diagrs., 3 tabs. (NACA TM 1356. Trans. from Izvestiya Akademii Nauk SSSR, Otdelenie Tekhnicheskikh Nauk, no. 11, 1951, p. 1669-1681).

TRANSIENT TEMPERATURES IN HEAT EXCHANGERS FOR SUPERSONIC BLOWDOWN TUNNELS. Joseph H. Judd. April 1954. 35p. diagrs., 2 tabs. (NACA TN 3078)

REGENERATORS (3.9.2.4)

EXPERIMENTAL INVESTIGATION OF HEAT-TRANSFER AND FLUID-FRICTION CHARACTERISTICS OF WHITE FUMING NITRIC ACID. Bruce A. Reese and Robert W. Graham, Purdue University. May 1954. 46p. diagrs., tab. (NACA TN 3181)

Cooling of Engines
(3.10)

GAS-TURBINE SYSTEMS
(3.10.2)

COMPUTED TEMPERATURE DISTRIBUTION AND COOLING OF SOLID GAS-TURBINE BLADES. J. George Reuter and Carl Gazley, Jr. February 11, 1947. 13p. diagrs., tab. (NACA RM E7B11h) (Declassified from Restricted, 12/14/53)

PERFORMANCE OF SEVERAL AIR EJECTORS WITH CONICAL MIXING SECTIONS AND SMALL SECONDARY FLOW RATES. S. C. Huddleston, H. D. Wilsted and C. W. Ellis. July 19, 1948. 74p. diagrs. (NACA RM E8D23) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF HIGH-TEMPERATURE OPERATION OF LIQUID-COOLED GAS TURBINES. I - TURBINE WHEEL OF ALUMINUM ALLOY, A HIGH-CONDUCTIVITY NONSTRATEGIC MATERIAL. Harry Kottas and Bob W. Sheflin. July 22, 1948. 15p. diagrs., photos., tab. (NACA RM E8D12) (Declassified from Restricted, 12/14/53)

ANALYTICAL INVESTIGATION OF EFFECT OF WATER-COOLED TURBINE BLADES ON PERFORMANCE OF TURBINE-PROPELLER POWER PLANTS. William D. Bowman. August 16, 1948. 67p. diagrs. (NACA RM E8E10) (Declassified from Restricted, 12/14/53)

EFFECT OF TEMPERATURE ON PERFORMANCE OF SEVERAL EJECTOR CONFIGURATIONS. H. D. Wilsted, S. C. Huddleston and C. W. Ellis. June 13, 1949. 27p. diagrs. (NACA RM E9E16) (Declassified from Restricted, 12/14/53)

ALTITUDE PERFORMANCE AND OPERATIONAL CHARACTERISTICS OF 29-INCH-DIAMETER TAILPIPE BURNER WITH SEVERAL FUEL SYSTEMS AND FLAME HOLDERS ON J35 TURBOJET ENGINE. E. William Conrad and William R. Prince. November 8, 1949. 50p. diagrs., photos., tab. (NACA RM E9G08) (Declassified from Restricted, 12/14/53)

APPLICATION OF BLADE COOLING TO GAS TURBINES. Herman H. Ellerbrock, Jr. and Louis J. Schafer, Jr. May 31, 1950. 102p. diagrs., photos. (NACA RM E50A04) (Declassified from Restricted, 12/11/53)

HEAT-TRANSFER AND OPERATING CHARACTERISTICS OF ALUMINUM FORCED-CONVECTION AND STAINLESS-STEEL NATURAL-CONVECTION WATER-COOLED SINGLE-STAGE TURBINES. John C. Freche and A. J. Diaguila. June 30, 1950. 48p. diagrs., photo., 2 tabs. (NACA RM E50D03a) (Declassified from Restricted, 12/11/53)

ANALYTICAL INVESTIGATION OF FLOW AND HEAT TRANSFER IN COOLANT PASSAGES OF FREE-CONVECTION LIQUID-COOLED TURBINES. E. R. G. Eckert and Thomas W. Jackson. July 18, 1950. 45p. diagrs. (NACA RM E50D25) (Declassified from Restricted, 12/11/53)

PRELIMINARY ANALYSIS OF EFFECTS OF AIR COOLING TURBINE BLADES ON TURBOJET-ENGINE PERFORMANCE. Wilson B. Schramm, Alfred J. Nachtigall and Vernon L. Arne. August 2, 1950. 34p. diagrs., tab. (NACA RM E50E22) (Declassified from Restricted, 12/11/53)

DETERMINATION OF GAS-TO-BLADE CONVECTION HEAT-TRANSFER COEFFICIENTS ON A FORCED-CONVECTION, WATER-COOLED SINGLE-STAGE ALUMINUM TURBINE. John C. Freche and Eugene F. Schum. January 3, 1951. 17p. diagrs., tab. (NACA RM E50J23) (Declassified from Restricted, 12/11/53)

INVESTIGATIONS OF SLOT CONFIGURATIONS FOR FILM-COOLED TURBINE BLADES BY FLOW VISUALIZATION METHODS. E. R. G. Eckert, Thomas W. Jackson and Allen C. Francisco. January 12, 1951. 57p. diagrs., photos. (NACA RM E50K01) (Declassified from Restricted, 12/11/53)

SURVEY OF ADVANTAGES AND PROBLEMS ASSOCIATED WITH TRANSPIRATION COOLING AND FILM COOLING OF GAS-TURBINE BLADES. E. R. G. Eckert and Jack B. Esgar. February 12, 1951. 39p. diagrs. (NACA RM E50K15) (Declassified from Restricted, 12/11/53)

A SUMMARY OF DESIGN INFORMATION FOR WATER-COOLED TURBINES. John C. Freche. March 9, 1951. 26p. diagrs. (NACA RM E51A03) (Declassified from Restricted, 12/11/53)

DETERMINATION OF BLADE-TO-COOLANT HEAT-TRANSFER COEFFICIENTS ON A FORCED-CONVECTION, WATER-COOLED, SINGLE-STAGE TURBINE. John C. Freche and Eugene F. Schum. July 1951. 25p. diagrs., 2 tabs. (NACA RM E51E18)

CALCULATED EFFECTS OF TURBINE ROTOR-BLADE COOLING-AIR FLOW, ALTITUDE, AND COMPRESSOR BLEED POINT ON PERFORMANCE OF A TURBOJET ENGINE. Vernon L. Arne and Alfred J. Nachtigall. August 1951. 24p. diagrs., 2 tabs. (NACA RM E51E24)

ANALYTICAL INVESTIGATION OF TWO LIQUID COOLING SYSTEMS FOR TURBINE BLADES. Thomas W. Jackson and John N. B. Livingood. August 1951. 27p. diagrs. (NACA RM E51F04)

Gas-Turbine Systems (Cont.)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. VII - ROTOR-BLADE FABRICATION PROCEDURES. Roger A. Long and Jack B. Esgar. September 1951. 30p. diagrs., photos. (NACA RM E51E23)

CALCULATIONS OF LAMINAR HEAT TRANSFER AROUND CYLINDERS OF ARBITRARY CROSS SECTION AND TRANSPIRATION-COOLED WALLS WITH APPLICATION TO TURBINE BLADE COOLING. E. R. G. Eckert and John N. B. Livingood. September 1951. 57p. diagrs., 2 tabs. (NACA RM E51F22)

BLADE-TO-COOLANT HEAT-TRANSFER RESULTS AND OPERATING DATA FROM A NATURAL-CONVECTION WATER-COOLED SINGLE-STAGE TURBINE. Anthony J. Diaguila and John C. Freche. November 1951. 22p. diagrs., tab. (NACA RM E51I17)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. IX - EVALUATION OF THE DURABILITY OF NONCRITICAL ROTOR BLADES IN ENGINE OPERATION. Francis S. Stepka and Robert O. Hickel. December 1951. 26p. diagrs., photos., 4 tabs. (NACA RM E51J10)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. I - EXPERIMENTAL DISK TEMPERATURE DISTRIBUTION IN MODIFIED J33 SPLIT-DISK ROTOR AT SPEEDS UP TO 6000 RPM. Wilson B. Schramm and Robert R. Ziemer. January 1952. 37p. diagrs., photos., 2 tabs. (NACA RM E51I11)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. II - MECHANICAL DESIGN, STRESS ANALYSIS, AND BURST TEST OF MODIFIED J33 SPLIT-DISK ROTOR. Richard H. Kemp and Merland L. Moseson. January 1952. 46p. diagrs., photos., tab. (NACA RM E51J03)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. X - ENDURANCE EVALUATION OF SEVERAL TUBE-FILLED ROTOR BLADES. Jack B. Esgar and John L. Clure. May 1952. 45p. diagrs., photos., 5 tabs. (NACA RM E52B13)

INVESTIGATIONS OF AIR-COOLED TURBINE ROTORS FOR TURBOJET ENGINES. III- EXPERIMENTAL COOLING-AIR IMPELLER PERFORMANCE AND TURBINE ROTOR TEMPERATURES IN MODIFIED J33 SPLIT-DISK ROTOR UP TO SPEEDS OF 10,000 RPM. Alfred J. Nachtigall, Charles F. Zalabak and Robert R. Ziemer. May 1952. 42p. diagrs., photos., 3 tabs. (NACA RM E52C12)

PRESSURE DROP IN COOLANT PASSAGES OF TWO AIR-COOLED TURBINE-BLADE CONFIGURATIONS. W. Byron Brown and Henry O. Slone. June 1952. 57p. diagrs., photos., tab. (NACA RM E52D01)

COMPARISON OF CALCULATED AND EXPERIMENTAL TEMPERATURES OF WATER-COOLED TURBINE BLADES. Eugene F. Schum, John C. Freche and William J. Stelpflug. July 1952. 36p. diagrs., 3 tabs. (NACA RM E52D21)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

EXPERIMENTAL INVESTIGATION OF FREE-CONVECTION HEAT TRANSFER IN VERTICAL TUBE AT LARGE GRASHOF NUMBERS. E. R. G. Eckert and A. J. Diaguila. August 1952. 37p. diagrs., photos., tab. (NACA RM E52F30)

AN ANALYSIS OF LAMINAR FREE-CONVECTION FLOW AND HEAT TRANSFER ABOUT A FLAT PLATE PARALLEL TO THE DIRECTION OF THE GENERATING BODY FORCE. Simon Ostrach. APPENDIX B: NUMERICAL SOLUTION OF SIMPLIFIED BOUNDARY-VALUE PROBLEM. Lynn U. Albers. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1111. Formerly TN 2635)

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EXPERIMENTS ON MIXED-FREE- AND -FORCED-CONVECTIVE HEAT TRANSFER CONNECTED WITH TURBULENT FLOW THROUGH A SHORT TUBE. E. R. G. Eckert, Anthony J. Diaguila and Arthur N. Curren. July 1953. 59p. diagrs., photo. (NACA TN 2974)

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USE OF ELECTRIC ANALOGS FOR CALCULATION OF TEMPERATURE DISTRIBUTION OF COOLED TURBINE BLADES. Herman H. Ellerbrock, Jr., Eugene F. Schum and Alfred J. Nachtigall. December 1953. 116p. diagrs., photos., 6 tabs. (NACA TN 3060)

COMBINED NATURAL- AND FORCED-CONVECTION LAMINAR FLOW AND HEAT TRANSFER OF FLUIDS WITH AND WITHOUT HEAT SOURCES IN CHANNELS WITH LINEARLY VARYING WALL TEMPERATURES. Simon Ostrach. April 1954. 74p. diagrs., 2 tabs. (NACA TN 3141)

RAM JETS

(3.10.3)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

AN ANALYSIS OF LAMINAR FREE-CONVECTION FLOW AND HEAT TRANSFER ABOUT A FLAT PLATE PARALLEL TO THE DIRECTION OF THE GENERATING BODY FORCE. Simon Ostrach. APPENDIX B: NUMERICAL SOLUTION OF SIMPLIFIED BOUNDARY-VALUE PROBLEM. Lynn U. Albers. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1111. Formerly TN 2635)

PULSE JETS (3.10.4)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

ROCKETS (3.10.5)

RADIANT HEAT TRANSFER FROM FLAMES IN A SINGLE TUBULAR TURBOJET COMBUSTOR. Leonard Topper. August 1952. 30p. diagrs., tab. (NACA RM E52F23)

EXPERIMENTAL INVESTIGATION OF A LIGHT-WEIGHT ROCKET CHAMBER. John E. Dalgleish and Adelbert O. Tischler. March 1953. 12p. photos. (NACA RM E52L19a)

EXPERIMENTAL INVESTIGATION OF HEAT-TRANSFER AND FLUID-FRICTION CHARACTERISTICS OF WHITE FUMING NITRIC ACID. Bruce A. Reese and Robert W. Graham, Purdue University. May 1954. 46p. diagrs., tab. (NACA TN 3181)

Properties of Gases

(3.11)

PHYSICAL PROPERTIES OF CONCENTRATED NITRIC ACID. W. L. Sibbitt, C. R. St. Clair, T. R. Bump, P. F. Pagerey, J. P. Kern and D. W. Fyfe, Purdue University. June 1953. 19p. diagrs., 2 tabs. (NACA TN 2970)

MINIMUM SPARK-IGNITION ENERGIES OF 12 PURE FUELS AT ATMOSPHERIC AND REDUCED PRESSURE. Allen J. Metzler. October 1953. 28p. diagrs., 5 tabs. (NACA RM E53H31)

KINETIC

(3.11.1)

A THEORETICAL INVESTIGATION OF THE HEATING-UP PERIOD OF INJECTED FUEL DROPLETS VAPORIZING IN AIR. M. M. El Wakil, O. A. Uyehara and P. S. Myers, University of Wisconsin. May 1954. 83p. diagrs., tab. (NACA TN 3179)

THERMODYNAMIC

(3.11.2)

THE CONDENSATION LINE OF AIR AND THE HEATS OF VAPORIZATION OF OXYGEN AND NITROGEN. George T. Furukawa and Robert E. McCoskey, National Bureau of Standards. June 1953. 30p. diagrs., 8 tabs. (NACA TN 2969)

EXPERIMENTAL INVESTIGATION OF HEAT-TRANSFER AND FLUID-FRICTION CHARACTERISTICS OF WHITE FUMING NITRIC ACID. Bruce A. Reese and Robert W. Graham, Purdue University. May 1954. 46p. diagrs., tab. (NACA TN 3181)

Accessories and Accessory Functions (3.12)

FUEL SYSTEMS (3.12.1)

AN ANALYTICAL AND EXPERIMENTAL STUDY OF THE TRANSIENT RESPONSE OF A PRESSURE-REGULATING RELIEF VALVE IN A HYDRAULIC CIRCUIT. Harold Gold and Edward W. Otto. March 1954. 54p. diagrs., photo., 3 tabs. (NACA TN 3102)

SPARK-IGNITION ENGINES (3.12.1.1)

A FUEL-DISTRIBUTION CONTROL FOR CONTINUOUS-FLOW MANIFOLD INJECTION ON RECIPROCATING ENGINES. Harold Gold and David M. Straight. June 6, 1947. 16p. diagrs., photos. (NACA RM E7D22) (Declassified from Restricted, 12/14/53)

TURBOJET ENGINES (3.12.1.4)

AN ANALYSIS OF CONTROL REQUIREMENTS AND CONTROL PARAMETERS FOR DIRECT-COUPLED TURBOJET ENGINES. David Novik and Edward W. Otto. February 18, 1948. 50p. diagrs. (NACA RM E7I25a) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL AND ANALYTICAL STUDY OF BALANCED-DIAPHRAGM FUEL DISTRIBUTORS FOR GAS-TURBINE ENGINES. David M. Straight and Harold Gold. August 14, 1950. 62p. diagrs., photos. (NACA RM E50F05) (Declassified from Restricted, 12/11/53)

ANALOG STUDY OF INTERACTING AND NON-INTERACTING MULTIPLE-LOOP CONTROL SYSTEMS FOR TURBOJET ENGINES. George J. Pack and W. E. Phillips, Jr. March 1954. 33p. diagrs., photos. (NACA TN 3112)

TURBINE-PROPELLER ENGINES (3.12.1.5)

BENCH AND ENGINE OPERATION OF A FUEL-DISTRIBUTION CONTROL. Harold Gold and Robert J. Koenig. June 14, 1948. 34p. diagrs., photos. (NACA RM E8A28a) (Declassified from Restricted, 12/14/53)

A FUEL-DISTRIBUTION CONTROL FOR GAS-TURBINE ENGINES. Harold Gold and David M. Straight. June 14, 1948. 17p. diagrs., photos. (NACA RM E8C08) (Declassified from Restricted, 12/14/53)

CONTROL DURING STARTING OF GAS-TURBINE ENGINES. Robert J. Koenig and Marcel Dandois. June 17, 1948. 39p. diagrs., photos. (NACA RM E7L17) (Declassified from Restricted, 12/14/53)

GAS-TURBINE-ENGINE OPERATION WITH VARIABLE-AREA FUEL NOZZLE. Harold Gold and David M. Straight. July 9, 1948. 47p. diagrs., photos. (NACA RM E8D14) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. V - OPERATIONAL CHARACTERISTICS. Richard L. Golladay and Stanley L. Gendler. August 25, 1948. 71p. diagrs., photos., 6 tabs. (NACA RM E8G02d) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL AND ANALYTICAL STUDY OF BALANCED-DIAPHRAGM FUEL DISTRIBUTORS FOR GAS-TURBINE ENGINES. David M. Straight and Harold Gold. August 14, 1950. 62p. diagrs., photos. (NACA RM E50F05) (Declassified from Restricted, 12/11/53)

RAM-JET ENGINES (3.12.1.7)

INDIRECT METHODS FOR OBTAINING RAM-JET EXHAUST-GAS TEMPERATURE APPLIED TO FUEL-METERING CONTROL. Eugene Perchonok, William H. Sterbentz and Stanley H. Moore. January 14, 1948. 36p. diagrs. (NACA RM E7H27) (Declassified from Confidential, 1/8/54)

A THEORETICAL ANALYSIS OF THE DISTORTION OF FUEL-SPRAY-PARTICLE PATHS IN A HELICOPTER RAM-JET ENGINE DUE TO CENTRIFUGAL EFFECTS. S. Katzoff and Samuel L. Smith, III. April 1953. 44p. diagrs., tab. (NACA RM L53A02)

IGNITION SYSTEMS (3.12.2)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. V - OPERATIONAL CHARACTERISTICS. Richard L. Golladay and Stanley L. Gendler. August 25, 1948. 71p. diagrs., photos., 6 tabs. (NACA RM E8G02d) (Declassified from Restricted, 12/14/53)

Ignition Systems (Cont.)

EFFECT OF RETRACTABLE IGNITION PLUG ON PLUG FOULING BY CARBON DEPOSITS. Jerrold D. Wear and Theodore E. Locke. August 24, 1950. 25p. diagrs., photos. (NACA RM E50F14) (Declassified from Restricted, 12/11/53)

LUBRICATIONS SYSTEMS (3.12.4)

INVESTIGATION OF THE I-40 JET-PROPULSION ENGINE IN THE CLEVELAND ALTITUDE WIND TUNNEL. V - OPERATIONAL CHARACTERISTICS. Richard L. Golladay and Stanley L. Gendler. August 25, 1948. 71p. diagrs., photos., 6 tabs. (NACA RM E8G02d) (Declassified from Restricted, 12/14/53)

Vibration and Flutter
(3.13)

VIBRATION OF LOOSELY MOUNTED TURBINE BLADES DURING SERVICE OPERATION OF A TURBOJET ENGINE WITH CENTRIFUGAL COMPRESSOR AND STRAIGHT-FLOW COMBUSTION CHAMBERS. W. C. Morgan, R. H. Kemp and S. S. Manson. November 3, 1949. 18p. diagrs., photos. (NACA RM E9I07) (Declassified from Restricted, 12/14/53)

THE EFFECTS OF VARIOUS PARAMETERS INCLUDING MACH NUMBER ON PROPELLER-BLADE FLUTTER WITH EMPHASIS ON STALL FLUTTER. John E. Baker. January 31, 1951. 40p. diagrs., 3 tabs. (NACA RM L50L12b) (Declassified from Restricted, 12/11/53)

PRELIMINARY INVESTIGATION OF THE EFFECTS OF CASCADING ON THE OSCILLATING LIFT FORCE OF AN AIRFOIL VIBRATED IN BENDING. Donald F. Johnson and Alexander Mendelson. September 1953. 15p. diagrs., photos. (NACA RM E53F29)

AIRCRAFT LOADS AND CONSTRUCTION

(4)

AIRCRAFT LOADS AND CONSTRUCTION (4)

AN EXPERIMENTAL INVESTIGATION OF WHEEL SPIN-UP DRAG LOADS. Benjamin Milwitzky, Dean C. Lindquist and Dexter M. Potter. June 1953. 18p. diagrs. (NACA RM L53E06b)

ACCELERATIONS AND PASSENGER HARNESS LOADS MEASURED IN FULL-SCALE LIGHT-AIRPLANE CRASHES. A. Martin Eiband, Scott H. Simpkinson and Dugald O. Black. August 1953. 67p. diagrs., photos. (NACA TN 2991)

Loads
(4.1)

AN EXPERIMENTAL INVESTIGATION OF WHEEL SPIN-UP DRAG LOADS. Benjamin Milwitzky, Dean C. Lindquist and Dexter M. Potter. June 1953. 18p. diagrs. (NACA RM L53E06b)

AERODYNAMIC
(4.1.1)

AN EMPIRICAL METHOD FOR ESTIMATING TRAILING-EDGE LOADS AT TRANSONIC SPEEDS. T. H. Skopinski. October 6, 1949. 43p. diagrs., tab. (NACA RM L9H08) (Declassified from Confidential, 1/8/54)

THE EFFECT OF ACCELERATING A HYPOTHETICAL AIRCRAFT THROUGH THE TRANSONIC RANGE WITH CONTROLS FIXED. Howard F. Matthews. April 4, 1950. 30p. diagrs., tab. (NACA RM A9J26) (Declassified from Restricted, 12/14/53)

THEORETICAL PRESSURE DISTRIBUTIONS AND WAVE DRAGS FOR CONICAL BOATTAILS. John R. Jack. July 1953. 14p. diagrs. (NACA TN 2972)

CALIBRATION OF STRAIN-GAGE INSTALLATIONS IN AIRCRAFT STRUCTURES FOR THE MEASUREMENT OF FLIGHT LOADS. T. H. Skopinski, William S. Aiken, Jr. and Wilber B. Huston. August 1953. 70p. diagrs., 10 tabs. NACA TN 2993. Formerly RM L52G31)

LOW-SPEED DRAG OF CYLINDERS OF VARIOUS SHAPES. Noel K. Delany and Norman E. Sorensen. November 1953. 22p. diagrs., photos., tab. (NACA TN 3038)

INVESTIGATION OF A SLAT IN SEVERAL DIFFERENT POSITIONS ON AN NACA 64A010 AIRFOIL FOR A WIDE RANGE OF SUBSONIC MACH NUMBERS. John A. Axelson and George L. Stevens. March 1954. 35p. diagrs., photos., 7 tabs. (NACA TN 3129)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

WINGS
(4.1.1.1)

AN INVESTIGATION OF THE EFFECTS OF SWEEP ON THE CHARACTERISTICS OF A HIGH-ASPECT-RATIO WING IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. February 14, 1947. 74p. diagrs., photos., 4 tabs. (NACA RM L6J01a) (Declassified from Restricted, 8/14/53)

AN INVESTIGATION OF THE LATERAL-CONTROL CHARACTERISTICS OF SPOILERS ON A HIGH-ASPECT-RATIO WING OF NACA 65-210 SECTION IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Arvo A. Luoma. June 24, 1947. 124p. diagrs., photos., 2 tabs. (NACA RM L7D21) (Declassified from Restricted, 10/21/53)

A LIMIT PRESSURE COEFFICIENT AND AN ESTIMATION OF LIMIT FORCES ON AIRFOILS AT SUPERSONIC SPEEDS. John P. Mayer. August 23, 1948. 18p. diagrs. (NACA RM L8F23) (Declassified from Confidential, 1/8/54)

LOW-SPEED PRESSURE-DISTRIBUTION AND FLOW INVESTIGATION FOR A LARGE PITCH AND YAW RANGE OF THREE LOW-ASPECT-RATIO POINTED WINGS HAVING LEADING EDGE SWEPT BACK 60° AND BICONVEX SECTIONS. Ralph W. May, Jr. and John G. Hawes. November 18, 1949. 109p. diagrs., photos., tab. (NACA RM L9J07) (Declassified from Restricted, 12/14/53)

CHORDWISE AND SPANWISE LOADINGS MEASURED AT LOW SPEEDS ON A LARGE TRIANGULAR WING HAVING AN ASPECT RATIO OF 2 AND A THIN, SUBSONIC-TYPE AIRFOIL SECTION. David Graham. March 13, 1950. 55p. diagrs., photo., 2 tabs. (NACA RM A50A04a) (Declassified from Restricted, 12/11/53)

PRESSURE COEFFICIENTS AT MACH NUMBERS FROM 0.60 TO 0.85 FOR A SEMISPAN WING WITH NACA 0012-64 SECTION, 20-PERCENT-CHORD PLAIN AILERON, AND 0° AND 45° SWEEPBACK. Walter J. Krumm. April 19, 1950. 36p. diagrs., 30 tabs. (NACA RM A50B13) (Declassified from Restricted, 12/11/53)

HIGH-SPEED AERODYNAMIC CHARACTERISTICS OF A LATERAL-CONTROL MODEL. III - SECTION CHARACTERISTICS, FENCE STUDIES, AND TABULATED PRESSURE COEFFICIENTS WITH MODIFIED NACA 0012-64 SECTION, 26.6-PERCENT-CHORD, PLAIN AILERON, 0° AND 45° SWEEPBACK. Walter J. Krumm and Joseph W. Cleary. November 22, 1950. 79p. diagrs., photos., 4 tabs. (NACA RM A50H17) (Declassified from Restricted, 12/11/53)

A FINITE-STEP METHOD FOR THE CALCULATION OF SPAN LOADINGS OF UNUSUAL PLAN FORMS. George S. Campbell. July 16, 1951. 34p. diagrs., 4 tabs. (NACA RM L50L13) (Declassified from Confidential, 3/10/54)

CALCULATED AERODYNAMIC LOADINGS OF M, W, AND Λ WINGS IN INCOMPRESSIBLE FLOW. Franklin W. Diederich and W. Owen Latham. August 30, 1951. 58p. diagrs., tab. (NACA RM L51E29) (Declassified from Confidential, 3/10/54)

Wings - Aerodynamic (Cont.)

A COMPARISON OF THE SPANWISE LOADING CALCULATED BY VARIOUS METHODS WITH EXPERIMENTAL LOADINGS OBTAINED ON A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT A REYNOLDS NUMBER OF 4.0 x 10^6. William C. Schneider. January 1952. 32p. diagrs., tab. (NACA RM L51G30)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 60° SWEPT-BACK WING WITH HIGH LIFT DEVICES. Mark W. Kelly. March 1952. 54p. diagrs., photo., 7 tabs. (NACA RM A52A14a)

THEORETICAL CALCULATION OF THE EFFECT OF THE FUSELAGE ON THE SPANWISE LIFT DISTRIBUTION ON A WING. Martin Zlotnick and Franklin W. Diederich. March 1952. 27p. diagrs. (NACA RM L51J19)

LOW-SPEED AERODYNAMIC CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING WITH PARTIAL-SPAN SLATS, DOUBLE-SLOTTED FLAPS, AND AILERONS. Harry A. James. April 1952. 101p. diagrs., photos., 9 tabs. (NACA RM A52B19)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LATERAL CONTROL OF SWEPT AND UNSWEPT WINGS. Kenneth A. Foss and Franklin W. Diederich. 1953. iii, 25p. diagrs., 2 tabs. (NACA Rept. 1139. Formerly TN 2747)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LOADING OF SWEPT AND UNSWEPT WINGS. Franklin W. Diederich and Kenneth A. Foss. 1953. iii, 48p. diagrs., 3 tabs. (NACA Rept. 1140. Formerly TN 2608)

THE LOW-SPEED LIFT AND PITCHING-MOMENT CHARACTERISTICS CF A 45° SWEPTBACK WING OF ASPECT RATIO 8 WITH AND WITHOUT HIGH-LIFT AND STALL-CONTROL DEVICES AS DETERMINED FROM PRESSURE DISTRIBUTIONS AT A REYNOLDS NUMBER OF 4.0 x 10^6. Thomas V. Bollech and William M. Hadaway. January 1953. 57p. diagrs., photo. (NACA RM L52K26)

CALCULATED SPANWISE LIFT DISTRIBUTIONS AND AERODYNAMIC INFLUENCE COEFFICIENTS FOR UNSWEPT WINGS IN SUBSONIC FLOW. Franklin W. Diederich and Martin Zlotnick. September 1953. 120p. diagrs., 11 tabs. (Tables of F matrices to be used with TN 3014 are published separately) (NACA TN 3014)

THE CALCULATED AND EXPERIMENTAL INCREMENTAL LOADS AND MOMENTS PRODUCED BY SPLIT FLAPS OF VARIOUS SPANS AND SPANWISE LOCATIONS ON A 45° SWEPTBACK WING OF ASPECT RATIO 8. H. Neale Kelly. September 1953. 35p. diagrs., photo. (NACA RM L53F12)

A METHOD FOR CALCULATING THE SUBSONIC STEADY-STATE LOADING ON AN AIRPLANE WITH A WING OF ARBITRARY PLAN FORM AND STIFFNESS. W. L. Gray and K. M. Schenk, Boeing Airplane Company. December 1953. ii, 120p. diagrs., tab. (NACA TN 3030)

A SIMPLIFIED MATHEMATICAL MODEL FOR CALCULATING AERODYNAMIC LOADING AND DOWNWASH FOR WING-FUSELAGE COMBINATIONS WITH WINGS OF ARBITRARY PLAN FORM. Martin Zlotnick and Samuel W. Robinson, Jr. January 1954. 38p. diagrs. (NACA TN 3057. Formerly RM L52J27a)

SPAN LOAD DISTRIBUTIONS RESULTING FROM CONSTANT VERTICAL ACCELERATION FOR THIN SWEPTBACK TAPERED WINGS WITH STREAMWISE TIPS. SUPERSONIC LEADING AND TRAILING EDGES. Isabella J. Cole and Kenneth Margolis. January 1954. 62p. diagrs., 2 tabs. (NACA TN 3120)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING THE LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING FINITE WINGS IN SUBSONIC FLOW. Charles E. Watkins, Harry L. Runyan and Donald S. Woolston. January 1954. 44p. (NACA TN 3131)

Steady Loads
(4.1.1.1.1)

SOME PRESSURE-DISTRIBUTION MEASUREMENTS ON A SWEPT WING AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. J. Ford Johnston and Edward C. B. Danforth. June 6, 1947. 21p. diagrs., photos. (NACA RM L7D22)

INVESTIGATION OF PRESSURE DISTRIBUTION OVER AN EXTENDED LEADING-EDGE FLAP ON A 42° SWEPTBACK WING. D. William Conner and Gerald V. Foster. December 19, 1947. 12p. diagrs. (NACA RM L7J03) (Declassified from Restricted, 12/14/53)

A COMPILATION OF THE PRESSURES MEASURED ON A WING AND AILERON WITH VARIOUS AMOUNTS OF SWEEP IN THE LANGLEY 8-FOOT HIGH-SPEED TUNNEL. Richard T. Whitcomb. April 13, 1948. 84p. diagrs., 78 tabs. (NACA RM L8A30a) (Declassified from Restricted, 12/14/53)

LOW-SPEED PRESSURE DISTRIBUTIONS OVER THE DROOPED-NOSE FLAP OF A 42° SWEPTBACK WING WITH CIRCULAR-ARC AIRFOIL SECTIONS AT A REYNOLDS NUMBER OF 5.3 x 10^6. Stanley H. Spooner and Robert L. Woods. September 23, 1948. 28p. diagrs., tab. (NACA RM L8F16) (Declassified from Restricted, 12/14/53)

PRESSURE-DISTRIBUTION MEASUREMENTS OVER AN EXTENSIBLE LEADING-EDGE FLAP ON TWO WINGS HAVING LEADING-EDGE SWEEP OF 42° AND 52°. Reino J. Salmi. March 7, 1949. 36p. diagrs., photos. (NACA RM L9A18) (Declassified from Restricted, 12/14/53)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

Steady Loads, Wings - Aerodynamic (Cont.)

LOW-SPEED INVESTIGATION OF THE AERODYNAMIC LOADS ON THE DROOP-NOSE FLAP OF A WING WITH LEADING EDGE SWEPT BACK 47.5° AND HAVING SYMMETRICAL CIRCULAR-ARC AIRFOIL SECTIONS AT A REYNOLDS NUMBER OF 4.3 x 10^6. Edward F. Whittle, Jr. and Marvin P. Fink. January 16, 1950. 34p. diagrs., 3 tabs. (NACA RM L9K04) (Declassified from Restricted, 12/14/53)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton. March 20, 1950. 32p. diagrs., photos., tab. (NACA RM A50A10) (Declassified from Restricted, 12/11/53)

AN ANALYSIS OF THE FORCES AND PRESSURE DISTRIBUTION ON A WING WITH THE LEADING EDGE SWEPT BACK 37.25°. George G. Edwards and Frederick W. Boltz. March 30, 1950. 102p. diagrs., photos., 2 tabs. (NACA RM A9K01) (Declassified from Restricted, 12/14/53)

LOW-SPEED PRESSURE-DISTRIBUTION MEASUREMENTS AT A REYNOLDS NUMBER OF 3.5 x 10^6 ON A WING WITH LEADING-EDGE SWEEPBACK DECREASING FROM 45° AT THE ROOT TO 20° AT THE TIP. U. Reed Barnett, Jr. and Roy H. Lange. July 7, 1950. 39p. diagrs., photo. (NACA RM L50A23a) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF COMPRESSIBILITY ON THE PRESSURES ON A BODY OF REVOLUTION AND ON THE AERODYNAMIC CHARACTERISTICS OF A WING-NACELLE COMBINATION CONSISTING OF THE BODY OF REVOLUTION MOUNTED ON A SWEPT-BACK WING. Frederick W. Boltz and Benjamin H. Beam. July 26, 1950. 68p. diagrs., photos., 2 tabs. (NACA RM A50E09) (Declassified from Restricted, 12/11/53)

THE EFFECTS OF CAMBER AND TWIST ON THE AERODYNAMIC LOADING AND STALLING CHARACTERISTICS OF A LARGE-SCALE 45° SWEPT-BACK WING. Lynn W. Hunton and Joseph K. Dew. January 24, 1951. 40p. diagrs., photo., tab. (NACA RM A50J24) (Declassified from Restricted, 12/11/53)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPT WING WITH LEADING-EDGE INLETS. Robert E. Dannenberg. August 1951. 48p. diagrs., photos., tab. (NACA RM A51E29)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A PLANE WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Carl D. Kolbe and Frederick W. Boltz. October 1951. 159p. diagrs., photo., 22 tabs. (NACA RM A51G31)

LOW-SPEED CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 FROM PRESSURE DISTRIBUTIONS AND FORCE TESTS AT REYNOLDS NUMBERS FROM 1,500,000 TO 4,800,000. Robert R. Graham. October 1951. 54p. diagrs., photos., tab. (NACA RM L51H13)

FORCE AND PRESSURE INVESTIGATION AT LARGE SCALE OF A 49° SWEPTBACK SEMISPAN WING HAVING NACA 65A006 SECTIONS AND EQUIPPED WITH VARIOUS SLAT ARRANGEMENTS. Stanley Lipson and U. Reed Barnett, Jr. January 1952. 60p. diagrs., photo., tab. (NACA RM L51K26)

THE FORCES AND PRESSURE DISTRIBUTION AT SUBSONIC SPEEDS ON A CAMBERED AND TWISTED WING HAVING 45° OF SWEEPBACK, AN ASPECT RATIO OF 3, AND A TAPER RATIO OF 0.5. Frederick W. Boltz and Carl D. Kolbe. July 1952. 166p. diagrs., 22 tabs. (NACA RM A52D22)

EFFECTS OF TWIST AND CAMBER ON THE LOW-SPEED LONGITUDINAL STABILITY CHARACTERISTICS OF A 45° SWEPTBACK WING OF ASPECT RATIO 8 AT REYNOLDS NUMBERS FROM 1.5 x 10^6 TO 4.8 x 10^6 AS DETERMINED BY PRESSURE DISTRIBUTIONS, FORCE TESTS, AND CALCULATIONS. George L. Pratt. December 1952. 104p. diagrs., photo., 3 tabs. (NACA RM L52J03a)

RECIPROCITY RELATIONS IN AERODYNAMICS. Max. A. Heaslet and John R. Spreiter. 1953. ii, 16p. diagrs. (NACA Rept. 1119. Formerly TN 2700)

EXPERIMENTAL AND THEORETICAL STUDY OF THE INTERFERENCE AT LOW SPEED BETWEEN SLENDER BODIES AND TRIANGULAR WINGS. Edward J. Hopkins and Hubert C. Carel. May 1953. 40p. diagrs., photos., tab. (NACA RM A53A14)

EFFECTS OF FINITE SPAN ON THE SECTION CHARACTERISTICS OF TWO 45° SWEPTBACK WINGS OF ASPECT RATIO 6. Lynn W. Hunton. September 1953. 32p. diagrs. (NACA TN 3008. Formerly RM A52A10)

THE FLOW ABOUT A SECTION OF A FINITE-ASPECT-RATIO NACA 0015 AIRFOIL ON A TRANSONIC BUMP. Jack A. Mellenthin. October 1953. 30p. diagrs., photos., tab. (NACA TN 3036)

USE OF TWO-DIMENSIONAL DATA IN ESTIMATING LOADS ON A 45° SWEPTBACK WING WITH SLATS AND PARTIAL-SPAN FLAPS. Lynn W. Hunton and Harry A. James. November 1953. 40p. diagrs., photo., tab. (NACA TN 3040)

THEORETICAL CALCULATIONS OF THE EFFECTS OF FINITE SIDESLIP AT SUPERSONIC SPEEDS ON THE SPAN LOADING AND ROLLING MOMENT FOR FAMILIES OF THIN SWEPTBACK TAPERED WINGS AT AN ANGLE OF ATTACK. Windsor L. Sherman and Kenneth Margolis. November 1953. 53p. diagrs., tab. (NACA TN 3046)

A DESIGN STUDY OF LEADING-EDGE INLETS FOR UNSWEPT WINGS. Robert E. Dannenberg. March 1954. 56p. diagrs., photos., 3 tabs. (NACA TN 3126. Formerly RM A9K02b)

EFFECTS OF SUBSONIC MACH NUMBER ON THE FORCES AND PRESSURE DISTRIBUTIONS ON FOUR NACA 64A-SERIES AIRFOIL SECTIONS AT ANGLES OF ATTACK AS HIGH AS 28°. Louis S. Stivers, Jr. March 1954. 145p. diagrs., photos., 8 tabs. (NACA TN 3162)

Steady Loads, Wings - Aerodynamic (Cont.)

COMPARISON BETWEEN THEORY AND EXPERIMENT FOR INTERFERENCE PRESSURE FIELD BETWEEN WING AND BODY AT SUPERSONIC SPEEDS. William C. Pitts, Jack N. Nielsen and Maurice P. Gionfriddo. April 1954. 64p. diagrs., 2 tabs. (NACA TN 3128)

Maneuvering (4.1.1.1.2)

A LIMIT PRESSURE COEFFICIENT AND AN ESTIMATION OF LIMIT FORCES ON AIRFOILS AT SUPERSONIC SPEEDS. John P. Mayer. August 23, 1948. 18p. diagrs. (NACA RM L8F23) (Declassified from Confidential, 1/8/54)

ANALYSIS OF V-g DATA OBTAINED FROM SEVERAL NAVAL AIRPLANES. James O. Thornton. July 7, 1950. 28p. diagrs., 4 tabs. (NACA RM L9L13) (Declassified from Restricted, 12/14/53)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

ANALYSIS OF V-g RECORDS FROM THE GRUMMAN F8F-2 AIRPLANE. James O. Thornton. July 1952. 11p. diagrs., tab. (NACA RM L51J25)

RECIPROCITY RELATIONS IN AERODYNAMICS. Max. A. Heaslet and John R. Spreiter. 1953. ii, 16p. diagrs. (NACA Rept. 1119. Formerly TN 2700)

MANEUVER ACCELERATIONS EXPERIENCED BY FIVE TYPES OF COMMERCIAL TRANSPORT AIR PLANES DURING ROUTINE OPERATIONS. Thomas L. Coleman and Martin R. Copp. April 1954. 26p. diagrs., 3 tabs. (NACA TN 3086)

Gust Loads (4.1.1.1.3)

A PRELIMINARY GUST-TUNNEL INVESTIGATION OF LEADING-EDGE SEPARATION ON SWEPT WINGS. George L. Cahen. June 1952. 12p. photos. (NACA RM L52C20)

NOTES ON THE GUST PROBLEM FOR HIGH-SPEED LOW-ALTITUDE BOMBERS. Langley Gust Loads Branch. June 5, 1952. 23p. diagrs., 3 tabs. (NACA RM L52E22) (Declassified from Secret, 11/10/53)

RECIPROCITY RELATIONS IN AERODYNAMICS. Max. A. Heaslet and John R. Spreiter. 1953. ii, 16p. diagrs. (NACA Rept. 1119. Formerly TN 2700)

SUMMARY OF PILOTS' REPORTS OF CLEAR-AIR TURBULENCE AT ALTITUDES ABOVE 10,000 FEET. Harry Press, Martin H. Schindler and James K. Thompson. March 1953. 18p. diagrs., 5 tabs. (NACA RM L52L30a)

FLIGHT INVESTIGATION OF THE EFFECT OF TRANSIENT WING RESPONSE ON WING STRAINS OF A FOUR-ENGINE BOMBER AIRPLANE IN ROUGH AIR. Harold N. Murrow and Chester B. Payne. June 1953. 24p. diagrs., 2 tabs. (NACA TN 2951)

A REVISED FORMULA FOR THE CALCULATION OF GUST LOADS. Kermit G. Pratt. June 1953. 15p. diagrs. (NACA TN 2964)

GUST-TUNNEL INVESTIGATION TO DETERMINE EFFECTS OF CENTER-OF-GRAVITY POSITION ON THE GUST LOADS OF A DELTA-WING MODEL WITH LEADING EDGE SWEPT BACK 60°. Thomas D. Reisert and Domenic J. Maglieri. June 1953. 13p. diagrs., photo., 2 tabs. (NACA RM L53A30)

A FLIGHT INVESTIGATION OF SOME EFFECTS OF AUTOMATIC CONTROL ON GUST LOADS. Chester B. Payne. July 1953. 18p. diagrs., tab. (NACA RM L53E14a)

AN ANALYSIS OF NORMAL-ACCELERATION AND AIRSPEED DATA FROM A FOUR-ENGINE TYPE OF TRANSPORT AIRPLANE IN COMMERCIAL OPERATION ON AN EASTERN UNITED STATES ROUTE FROM NOVEMBER 1947 TO FEBRUARY 1950. Thomas L. Coleman and Paul W. J. Schumacher. August 1953. 27p. diagrs., 5 tabs. (NACA TN 2965)

CORRELATION OF CALCULATION AND FLIGHT STUDIES OF THE EFFECT OF WING FLEXIBILITY ON STRUCTURAL RESPONSE DUE TO GUSTS. John C. Houbolt. August 1953. 14p. diagrs., tab. (NACA TN 3006)

SUMMARY OF REVISED GUST-VELOCITY DATA OBTAINED FROM V-G RECORDS TAKEN ON CIVIL TRANSPORT AIRPLANES FROM 1933 TO 1950. Walter G. Walker. November 1953. 16p. diagrs., 4 tabs. (NACA TN 3041)

GUST LOADS AND OPERATING AIRSPEEDS OF ONE TYPE OF FOUR-ENGINE TRANSPORT AIRPLANE ON THREE ROUTES FROM 1949 TO 1953. Walter G. Walker. November 1953. 34p. diagrs., 4 tabs. (NACA TN 3051)

GUST-TUNNEL INVESTIGATION OF THE EFFECT OF LEADING-EDGE SEPARATION ON THE NORMAL ACCELERATIONS EXPERIENCED BY A 45° SWEPTBACK-WING MODEL IN GUSTS. George L. Cahen. November 1953. 16p. diagrs., photos., tab. (NACA RM L53J07)

A NEW METHOD OF ANALYZING EXTREME-VALUE DATA. Julius Lieblein, National Bureau of Standards. January 1954. 88p. diagrs., 9 tabs. (NACA TN 3053)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

Gust, Wings - Aerodynamic (Cont.)

MANEUVER ACCELERATIONS EXPERIENCED BY FIVE TYPES OF COMMERCIAL TRANSPORT AIRPLANES DURING ROUTINE OPERATIONS. Thomas L. Coleman and Martin R. Copp. April 1954. 26p. diagrs., 3 tabs. (NACA TN 3086)

TAIL
(4.1.1.2)

A METHOD FOR CALCULATING THE SUBSONIC STEADY-STATE LOADING ON AN AIRPLANE WITH A WING OF ARBITRARY PLAN FORM AND STIFFNESS. W. L. Gray and K. M. Schenk, Boeing Airplane Company. December 1953. ii, 120p. diagrs., tab. (NACA TN 3030)

EFFECTS OF WING POSITION AND FUSELAGE SIZE ON THE LOW-SPEED STATIC AND ROLLING STABILITY CHARACTERISTICS OF A DELTA WING MODEL. Alex Goodman and David F. Thomas, Jr. February 1954. 66p. diagrs., photos., 3 tabs. (NACA TN 3063)

THEORETICAL SUPERSONIC FORCE AND MOMENT COEFFICIENTS ON A SIDESLIPPING VERTICAL- AND HORIZONTAL-TAIL COMBINATION WITH SUBSONIC LEADING EDGES AND SUPERSONIC TRAILING EDGES. Frank S. Malvestuto, Jr. March 1954. 69p. diagrs., 2 tabs. (NACA TN 3071)

Steady Loads
(4.1.1.2.1)

PRELIMINARY CORRELATION OF THE EFFECT OF COMPRESSIBILITY ON THE LOCATION OF THE SECTION AERODYNAMIC CENTER AT SUBCRITICAL SPEEDS. Edward C. Polhamus. November 3, 1948. 7p. diagr., tab. (NACA RM L8D14) (Declassified from Restricted, 12/14/53)

A FLIGHT INVESTIGATION OF THE EFFECT OF FLAP DEFLECTION ON HIGH-SPEED LONGITUDINAL-CONTROL CHARACTERISTICS. Maurice D. White, Melvin Sadoff, Lawrence A. Clousing and George E. Cooper. June 30, 1949. 28p. diagrs., photos., tab. (NACA RM A9D08) (Declassified from Restricted, 12/14/53)

INVESTIGATION OF MUTUAL INTERFERENCE EFFECTS OF SEVERAL VERTICAL-TAIL-FUSELAGE CONFIGURATIONS IN SIDESLIP. William H. Michael, Jr. January 1954. 35p. diagrs., photos., 3 tabs. (NACA TN 3135)

Maneuvering
(4.1.1.2.2)

ESTIMATION OF THE MAXIMUM ANGLE OF SIDESLIP FOR DETERMINATION OF VERTICAL-TAIL LOADS IN ROLLING MANEUVERS. Ralph W. Stone, Jr. 1953. ii, 12p. diagrs., 5 tabs. (NACA Rept. 1136. Formerly TN 2633)

SOME EFFECTS OF ASPECT RATIO AND TAIL LENGTH ON THE CONTRIBUTION OF A VERTICAL TAIL TO UNSTEADY LATERAL DAMPING AND DIRECTIONAL STABILITY OF A MODEL OSCILLATING CONTINUOUSLY IN YAW. Lewis R. Fisher. January 1954. 49p. diagrs., photos., 6 tabs. (NACA TN 3121)

Buffeting and Gust
(4.1.1.2.3)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

FUSELAGE, NACELLES, AND CANOPIES
(4.1.1.3)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

PRESSURE DISTRIBUTIONS OVER A WING-FUSELAGE MODEL AT MACH NUMBERS OF 0.4 TO 0.99 AND AT 1.2. Clarence W. Matthews. November 3, 1948. 24p. diagrs. (NACA RM L8H06) (Declassified from Confidential, 1/8/54)

SURFACE-PRESSURE DISTRIBUTIONS ON A SYSTEMATIC GROUP OF NACA 1-SERIES COWLINGS WITH AND WITHOUT SPINNERS. Robert W. Boswinkle, Jr. and Arvid L. Keith, Jr. November 30, 1948. 188p. diagrs., 3 tabs. (NACA RM L8I24) (Declassified from Restricted, 12/14/53)

AN INVESTIGATION OF THE CHARACTERISTICS OF THREE NACA 1-SERIES NOSE INLETS AT SUBCRITICAL AND SUPERCRITICAL MACH NUMBERS. Robert E. Pendley and Norman F. Smith. January 13, 1949. 38p. diagrs., photo. (NACA RM L8L06) (Declassified from Restricted, 12/14/53)

EFFECTS OF WING-TIP TURRETS ON THE AERODYNAMIC CHARACTERISTICS OF A TYPICAL BOMBER-WING MODEL. Lee E. Boddy and Fred B. Sutton. March 28, 1949. 22p. diagrs., photos. (NACA RM A9B09) (Declassified from Restricted, 12/10/53)

AN EXPERIMENTAL INVESTIGATION OF A JET-ENGINE NACELLE IN SEVERAL POSITIONS ON A 37.25° SWEPTBACK WING. Robert E. Dannenberg and James R. Blackaby. April 19, 1950. 51p. diagrs., photos., 4 tabs. (NACA RM A50A13) (Declassified from Restricted, 12/11/53)

AERODYNAMIC CHARACTERISTICS OF NACA RM-10 MISSILE IN 8- BY 6-FOOT SUPERSONIC WIND TUNNEL AT MACH NUMBERS FROM 1.49 TO 1.98. I - PRESENTATION AND ANALYSIS OF PRESSURE MEASUREMENTS (STABILIZING FINS REMOVED). Roger W. Luidens and Paul C. Simon. July 20, 1950. 53p. diagrs., photos. (NACA RM E50D10) (Declassified from Confidential, 3/10/54)

Fuselage, Nacelles, and Canopies (Cont.)

THE EFFECTS OF COMPRESSIBILITY ON THE PRESSURES ON A BODY OF REVOLUTION AND ON THE AERODYNAMIC CHARACTERISTICS OF A WING-NACELLE COMBINATION CONSISTING OF THE BODY OF REVOLUTION MOUNTED ON A SWEPT-BACK WING. Frederick W. Boltz and Benjamin H. Beam. July 26, 1950. 68p. diagrs., photos., 2 tabs. (NACA RM A50E09) (Declassified from Restricted, 12/11/53)

DRAG OF CIRCULAR CYLINDERS FOR A WIDE RANGE OF REYNOLDS NUMBERS AND MACH NUMBERS. Forrest E. Gowen and Edward W. Perkins. June 1953. 26p. diagrs., photos. (NACA TN 2960. Formerly RM A52C20)

A METHOD FOR CALCULATING THE SUBSONIC STEADY-STATE LOADING ON AN AIRPLANE WITH A WING OF ARBITRARY PLAN FORM AND STIFFNESS. W. L. Gray and K. M. Schenk, Boeing Airplane Company. December 1953. ii, 120p. diagrs., tab. (NACA TN 3030)

A SIMPLIFIED MATHEMATICAL MODEL FOR CALCULATING AERODYNAMIC LOADING AND DOWNWASH FOR WING-FUSELAGE COMBINATIONS WITH WINGS OF ARBITRARY PLAN FORM. Martin Zlotnick and Samuel W Robinson, Jr. January 1954. 38p. diagrs. (NACA TN 3057. Formerly RM L52J27a)

INVESTIGATION OF MUTUAL INTERFERENCE EFFECTS OF SEVERAL VERTICAL-TAIL-FUSELAGE CONFIGURATIONS IN SIDESLIP. William H. Michael, Jr. January 1954. 35p. diagrs., photos., 3 tabs. (NACA TN 3135)

ROTATING WINGS
(4.1.1.4)

ESTIMATION OF FORCES AND MOMENTS DUE TO ROLLING FOR SEVERAL SLENDER-TAIL CONFIGURATIONS AT SUPERSONIC SPEEDS. Percy J. Bobbitt and Frank S. Malvestuto, Jr. July 1953. 71p. diagrs. (NACA TN 2955)

FLIGHT MEASUREMENTS AND ANALYSIS OF HELICOPTER NORMAL LOAD FACTORS IN MANEUVERS. F. B. Gustafson and Almer D. Crim. August 1953. 29p. diagrs., photos., 2 tabs. (NACA TN 2990)

A PRELIMINARY INVESTIGATION OF THE EFFECTS OF GUSTY AIR ON HELICOPTER-BLADE BENDING MOMENTS. Joseph W. Jewel, Jr. and Paul J. Carpenter. March 1954. 28p. diagrs., photos. (NACA TN 3074)

AEROELASTICITY
(4.1.1.5)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL AND ANALYTICAL INVESTIGATION OF FLUTTER OF A NONUNIFORM SWEPT-BACK CANTILEVER WING WITH TWO CONCENTRATED WEIGHTS. John L. Sewall. December 1951. 33p. diagrs., photos., 3 tabs. (NACA RM L51H09a)

FLIGHT INVESTIGATION OF THE EFFECT OF TRANSIENT WING RESPONSE ON WING STRAINS OF A FOUR-ENGINE BOMBER AIRPLANE IN ROUGH AIR. Harold N. Murrow and Chester B. Payne. June 1953. 24p. diagrs., 2 tabs. (NACA TN 2951)

AN EXPLORATORY INVESTIGATION OF SOME TYPES OF AEROELASTIC INSTABILITY OF OPEN AND CLOSED BODIES OF REVOLUTION MOUNTED ON SLENDER STRUTS. S. A. Clevenson, E. Widmayer, Jr. and Franklin W. Diederich. June 1953. 44p. diagrs., photos., 3 tabs. (NACA RM L53E07)

ROLLING EFFECTIVENESS AND AILERON REVERSAL OF RECTANGULAR WINGS AT SUPERSONIC SPEEDS. John M. Hedgepeth and Robert J. Kell. April 1954. 79p. diagrs., 4 tabs. (NACA TN 3067)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

LANDING
(4.1.2)

AN EXPERIMENTAL INVESTIGATION OF WHEEL SPIN-UP DRAG LOADS. Benjamin Milwitzky, Dean C. Lindquist and Dexter M. Potter. June 1953. 18p. diagrs. (NACA RM L53E06b)

A PHOTOGRAPHIC METHOD FOR DETERMINING VERTICAL VELOCITIES OF AIRCRAFT IMMEDIATELY PRIOR TO LANDING. Emanuel Rind. January 1954. 23p. diagrs., photos. (NACA TN 3050)

IMPACT
(4.1.2.1)

SOME MEASUREMENTS OF LANDING CONTACT CONDITIONS OF TRANSPORT AIRPLANES IN ROUTINE OPERATIONS. Norman S. Silsby, Emanuel Rind and Garland J. Morris. July 1953. 8p. diagrs., photos. (NACA RM L53E05a)

Land
(4.1.2.1.1)

CONSIDERATIONS ON A LARGE HYDRAULIC JET CATAPULT. Upshur T. Joyner and Walter B. Horne. April 12, 1951. 57p. diagrs., photos., tab. (NACA RM L51B27) (Declassified from Restricted, 12/7/53)

Land, Impact - Landing (Cont.)

AN EXPERIMENTAL INVESTIGATION OF WHEEL SPIN-UP DRAG LOADS. Benjamin Milwitzky, Dean C. Lindquist and Dexter M. Potter. June 1953. 18p. diagrs. (NACA RM L53E06b)

A PHOTOGRAPHIC METHOD FOR DETERMINING VERTICAL VELOCITIES OF AIRCRAFT IMMEDIATELY PRIOR TO LANDING. Emanuel Rind. January 1954. 23p. diagrs., photos. (NACA TN 3050)

Water
(4.1.2.1.2)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

GROUND-RUN
(4.1.2.2)

Water
(4.1.2.2.2)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

Vibration and Flutter
(4.2)

PRELIMINARY EXPERIMENTS ON FORCES AND MOMENTS OF AN OSCILLATING WING AT HIGH-SUBSONIC SPEEDS. S. A. Clevenson and E. Widmayer, Jr. February 20, 1950. 28p. diagrs., tab. (NACA RM L9K28a) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF ROOT RESTRAINT ON THE FLUTTER OF A SWEPTBACK, UNIFORM, CANTILEVER WING WITH A VARIABLE LOCATED CONCENTRATED MASS. John E. Tomassoni and Herbert C. Nelson. March 31, 1950. 36p. diagrs., tab. (NACA RM L9J21a) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF THE EFFECT OF ASPECT RATIO AND MACH NUMBER ON THE FLUTTER OF CANTILEVER WINGS. E. Widmayer, Jr., W. T. Lauten, Jr. and S. A. Clevenson. June 1, 1950. 20p. diagrs., 2 tabs. (NACA RM L50C15a) (Declassified from Restricted, 12/11/53)

DESCRIPTION AND ANALYSIS OF A ROCKET-VEHICLE EXPERIMENT ON FLUTTER INVOLVING WING DEFORMATION AND BODY MOTIONS. H. J. Cunningham and R. R. Lundstrom. November 30, 1950. 27p. diagrs., photos., 2 tabs. (NACA RM L50I29) (Declassified from Restricted, 12/11/53)

AIR FORCES AND MOMENTS ON TRIANGULAR AND RELATED WINGS WITH SUBSONIC LEADING EDGES OSCILLATING IN SUPERSONIC POTENTIAL FLOW. Charles E. Watkins and Julian H. Berman. 1952. ii, 25p. diagrs., tab. (NACA Rept. 1099. Formerly TN 2457)

TRANSVERSE VIBRATIONS OF HOLLOW THIN-WALLED CYLINDRICAL BEAMS. Bernard Budiansky and Edwin T. Kruszewski. 1953. ii, 10p. diagrs. (NACA Rept. 1129. Formerly TN 2682)

SUPERSONIC FLOW PAST OSCILLATING AIRFOILS INCLUDING NONLINEAR THICKNESS EFFECTS. Milton D. Van Dyke. July 1953. 41p. diagrs. (NACA TN 2982)

VELOCITY POTENTIAL AND AIR FORCES ASSOCIATED WITH A TRIANGULAR WING IN SUPERSONIC FLOW, WITH SUBSONIC LEADING EDGES, AND DEFORMING HARMONICALLY ACCORDING TO A GENERAL QUADRATIC EQUATION. Charles E. Watkins and Julian H. Berman. September 1953. 61p. diagrs., tab. (NACA TN 3009)

THE PLANE PROBLEM OF THE FLAPPING WING. (Das ebene problem des schlagenden flugels). Walter Birnbaum. January 1954. 38p. diagrs., tab. (NACA TM 1364. Trans. from Zeitschrift für augewandte Mathematik und Mechanik, v.4, no.4, August 1924, p.277-292).

ANALYSIS OF STRAIGHT MULTICELL WINGS ON CAL-TECH ANALOG COMPUTER. Stanley U. Benscoter and Richard H. MacNeal, California Institute of Technology. January 1954. 79p. diagrs., 4 tabs. (NACA TN 3113)

A SUBSTITUTE-STRINGER APPROACH FOR INCLUDING SHEAR-LAG EFFECTS IN BOX-BEAM VIBRATIONS. William W. Davenport and Edwin T. Kruszewski. January 1954. 23p. diagrs., tab. (NACA TN 3158)

EFFECTS OF PANEL FLEXIBILITY ON NATURAL VIBRATION FREQUENCIES OF BOX BEAMS. Bernard Budiansky and Robert W. Fralich. March 1954. 55p. diagrs. (NACA TN 3070)

LIFT AND MOMENT COEFFICIENTS EXPANDED TO THE SEVENTH POWER OF FREQUENCY FOR OSCILLATING RECTANGULAR WINGS IN SUPERSONIC FLOW AND APPLIED TO A SPECIFIC FLUTTER PROBLEM. Herbert C. Nelson, Ruby A. Rainey and Charles E. Watkins. April 1954. 53p. diagrs. (NACA TN 3076)

WINGS AND AILERONS
(4.2.1)

TRANSONIC-FLUTTER INVESTIGATION OF WINGS ATTACHED TO TWO LOW-ACCELERATION ROCKET-PROPELLED VEHICLES. Reginald R. Lundstrom, William T. Lauten, Jr. and Ellwyn E. Angle. November 23, 1948. 24p. diagrs., photos., 3 tabs. (NACA RM L8I30) (Declassified from Restricted, 12/14/53)

INITIAL EXPERIMENTS ON FLUTTER OF UNSWEPT CANTILEVER WINGS AT MACH NUMBER 1.3. W. J. Tuovila, John E. Baker and Arthur A. Regier. January 6, 1949. 23p. diagrs., photos., 2 tabs. (NACA RM L8J11) (Declassified from Restricted, 12/14/53)

CONTINUATION OF WING FLUTTER INVESTIGATION IN THE TRANSONIC RANGE AND PRESENTATION OF A LIMITED SUMMARY OF FLUTTER DATA. William T. Lauten, Jr. and J. G. Barmby. April 21, 1949. 21p. diagrs., photos., 2 tabs. (NACA RM L9B25b) (Declassified from Restricted, 12/14/53)

WIND-TUNNEL INVESTIGATION OF TRANSONIC AILERON FLUTTER. Albert L. Erickson and Robert L. Mannes. June 9, 1949. 55p. diagrs., photos., tab. (NACA RM A9B28) (Declassified from Restricted, 12/14/53)

Wings and Ailerons (Cont.)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SWEEPBACK ON THE FLUTTER OF A UNIFORM CANTILEVER WING WITH A VARIABLE LOCATED CONCENTRATED MASS. Herbert C. Nelson and John E. Tomassoni. August 31, 1949. 33p. diagrs., tab. (NACA RM L9F24) (Declassified from Restricted, 12/14/53)

PRELIMINARY EXPERIMENTAL INVESTIGATION OF FLUTTER CHARACTERISTICS OF M AND W WINGS. Robert W. Herr. August 8, 1951. 31p. diagrs., photos., tab. (NACA RM L51E31) (Declassified from Confidential, 3/10/54)

EXPERIMENTAL AND ANALYTICAL INVESTIGATION OF FLUTTER OF A NONUNIFORM SWEPTBACK CANTILEVER WING WITH TWO CONCENTRATED WEIGHTS. John L. Sewall. December 1951. 33p. diagrs., photos., 3 tabs. (NACA RM L51H09a)

AN ITERATIVE TRANSFORMATION PROCEDURE FOR NUMERICAL SOLUTION OF FLUTTER AND SIMILAR CHARACTERISTIC-VALUE PROBLEMS. Myron L. Gossard. 1952. ii, 45p. diagrs., 9 tabs. (NACA Rept. 1073. Formerly TN 2346)

TWO- AND THREE-DIMENSIONAL UNSTEADY LIFT PROBLEMS IN HIGH-SPEED FLIGHT. Harvard Lomax, Max A. Heaslet, Franklyn B. Fuller and Loma Sluder. 1952. ii, 55p. diagrs., 3 tabs. (NACA Rept. 1077. Formerly TN 2403; TN 2387)

EXPERIMENTAL AERODYNAMIC DERIVATIVES OF A SINUSOIDALLY OSCILLATING AIRFOIL IN TWO-DIMENSIONAL FLOW. Robert L. Halfman, Massachusetts Institute of Technology. 1952. ii, 44p. diagrs., photo., 19 tabs. (NACA Rept. 1108. Formerly TN 2465)

SOME LOW-SPEED STUDIES OF THE EFFECTS OF WING LOCATION ON WING-DEFORMATION-BODY-FREEDOM FLUTTER. E. Widmayer, Jr. November 1952. 21p. diagrs., 3 tabs. (NACA RM L52I24)

CALCULATIONS ON THE FORCES AND MOMENTS FOR AN OSCILLATING WING-AILERON COMBINATION IN TWO-DIMENSIONAL POTENTIAL FLOW AT SONIC SPEED. Herbert C. Nelson and Julian H. Berman. 1953. ii, 16p. diagrs., 2 tabs. (NACA Rept. 1128. Formerly TN 2590)

ANALYSIS OF MULTICELL DELTA WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. December 1953. 84p. diagrs., 6 tabs. (NACA TN 3114)

ANALYSIS OF SWEPTBACK WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. January 1954. 80p. diagrs., 5 tabs. (NACA TN 3115)

ON THE KERNEL FUNCTION OF THE INTEGRAL EQUATION RELATING THE LIFT AND DOWNWASH DISTRIBUTIONS OF OSCILLATING FINITE WINGS IN SUBSONIC FLOW. Charles E. Watkins, Harry L. Runyan and Donald S. Woolston. January 1954. 44p. (NACA TN 3131)

A CALCULATION STUDY OF WING-AILERON FLUTTER IN TWO DEGREES OF FREEDOM FOR TWO-DIMENSIONAL SUPERSONIC FLOW. Donald S. Woolston and Vera Huckel. April 1954. 26p. diagrs., tab. (NACA TN 3160)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

TAILS
(4.2.2)

SOME EFFECTS OF ASPECT RATIO AND TAIL LENGTH ON THE CONTRIBUTION OF A VERTICAL TAIL TO UNSTEADY LATERAL DAMPING AND DIRECTIONAL STABILITY OF A MODEL OSCILLATING CONTINUOUSLY IN YAW. Lewis R. Fisher. January 1954. 49p. diagrs., photos., 6 tabs. (NACA TN 3121)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

ELEVATORS AND RUDDERS
(4.2.2.1)

A CALCULATION STUDY OF WING-AILERON FLUTTER IN TWO DEGREES OF FREEDOM FOR TWO-DIMENSIONAL SUPERSONIC FLOW. Donald S. Woolston and Vera Huckel. April 1954. 26p. diagrs., tab. (NACA TN 3160)

BODIES
(4.2.3)

EXPERIMENTAL INVESTIGATION OF THE EFFECTS OF SWEEPBACK ON THE FLUTTER OF A UNIFORM CANTILEVER WING WITH A VARIABLE LOCATED CONCENTRATED MASS. Herbert C. Nelson and John E. Tomassoni. August 31, 1949. 33p. diagrs., tab. (NACA RM L9F24) (Declassified from Restricted, 12/14/53)

AN ITERATIVE TRANSFORMATION PROCEDURE FOR NUMERICAL SOLUTION OF FLUTTER AND SIMILAR CHARACTERISTIC-VALUE PROBLEMS. Myron L. Gossard. 1952. ii, 45p. diagrs., 9 tabs. (NACA Rept. 1073. Formerly TN 2346)

SOME LOW-SPEED STUDIES OF THE EFFECTS OF WING LOCATION ON WING-DEFORMATION-BODY-FREEDOM FLUTTER. E. Widmayer, Jr. November 1952. 21p. diagrs., 3 tabs. (NACA RM L52I24)

MOMENT OF INERTIA AND DAMPING OF FLUID IN TANKS UNDERGOING PITCHING OSCILLATIONS. Edward Widmayer, Jr. and James R. Reese. June 1953. 9p. diagrs. (NACA RM L53E01a)

Bodies (Cont.)

AN EXPLORATORY INVESTIGATION OF SOME TYPES OF AEROELASTIC INSTABILITY OF OPEN AND CLOSED BODIES OF REVOLUTION MOUNTED ON SLENDER STRUTS. S. A. Clevenson, E. Widmayer, Jr. and Franklin W. Diederich. June 1953. 44p. diagrs., photos., 3 tabs. (NACA RM L53E07)

PROPELLER, FANS, AND COMPRESSORS (4.2.4)

VIBRATION SURVEY OF NACA 24-INCH SUPERSONIC AXIAL-FLOW COMPRESSOR. André J. Meyer, Jr. and Morgan P. Hanson. July 30, 1948. 45p. diagrs., photos. (NACA RM E8D30) (Declassified from Confidential, 1/8/54)

STATIC TESTS OF FOUR TWO-BLADE NACA PROPELLERS DIFFERING IN CAMBER AND SOLIDITY. Robert J. Platt, Jr. December 2, 1948. 23p. diagrs., photo. (NACA RM L8H25a) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. I - STATIC INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 34p. diagrs., photos., 2 tabs. (NACA RM E8J22) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. II - DYNAMIC INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 25p. diagrs., photos. (NACA RM E8J22a) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. III - PRELIMINARY ENGINE INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 23p. diagrs., photo. (NACA RM E8J22b) (Declassified from Restricted, 12/14/53)

EFFECTS OF OBSTRUCTIONS IN COMPRESSOR INLET ON BLADE VIBRATION IN 10-STAGE AXIAL-FLOW COMPRESSOR. Andre J. Meyer, Jr., Howard F. Calvert and C. Robert Morse. February 13, 1950. 16p. diagrs. (NACA RM E9L05) (Declassified from Restricted, 12/14/53)

A WIND-TUNNEL INVESTIGATION OF THE EFFECTS OF THRUST-AXIS INCLINATION ON PROPELLER FIRST-ORDER VIBRATION. W. H. Gray, J. M. Hallissy, Jr. and A. R. Heath, Jr. June 9, 1950. 64p. diagrs., photo., tab. (NACA RM L50D13) (Declassified from Restricted, 12, 11, 53)

THE EFFECTS OF VARIOUS PARAMETERS INCLUDING MACH NUMBER ON PROPELLER-BLADE FLUTTER WITH EMPHASIS ON STALL FLUTTER. John E. Baker. January 31, 1951. 40p. diagrs., 3 tabs. (NACA RM L50L12b) (Declassified from Restricted, 12/11/53)

SURVEYS OF THE FLOW FIELDS AT THE PROPELLER PLANES OF SIX 40° SWEPTBACK WING-FUSELAGE-NACELLE COMBINATIONS. Vernon L. Rogallo and John L. McCloud III. June 1953. 57p. diagrs., photos. (NACA TN 2957)

Structures
(4.3)

COLUMNS
(4.3.1)

CREEP-BUCKLING ANALYSIS OF RECTANGULAR-SECTION COLUMNS. Charles Libove. June 1953. 24p. diagrs. (NACA TN 2956)

PRELIMINARY INVESTIGATIONS OF STRENGTH CHARACTERISTICS OF STRUCTURAL ELEMENTS AT ELEVATED TEMPERATURES. Eldon E. Mathauser and Charles Libove. June 1953. 12p. diagrs. (NACA RM L53E04a)

STRUCTURAL EFFICIENCIES OF VARIOUS ALUMINUM, TITANIUM, AND STEEL ALLOYS AT ELEVATED TEMPERATURES. George J. Heimerl and Philip J. Hughes. July 1953. 16p. diagrs., tab. (NACA TN 2975)

CREEP BENDING AND BUCKLING OF LINEARLY VISCOELASTIC COLUMNS. Joseph Kempner, Polytechnic Institute of Brooklyn. January 1954. 22p. diagrs. (NACA TN 3136)

CREEP BENDING AND BUCKLING OF NONLINEARLY VISCOELASTIC COLUMNS. Joseph Kempner, Polytechnic Institute of Brooklyn. January 1954. 27p. diagrs., 3 tabs. (NACA TN 3137)

CREEP BUCKLING OF COLUMNS. Joseph Kempner and Sharad A. Patel, Polytechnic Institute of Brooklyn. January 1954. 24p. diagrs., 2 tabs. (NACA TN 3138)

TIME-DEPENDENT BUCKLING OF A UNIFORMLY HEATED COLUMN. Nathan Ness, Polytechnic Institute of Brooklyn. January 1954. 18p. diagrs. (NACA TN 3139)

THE EFFECT OF DYNAMIC LOADING ON THE STRENGTH OF AN INELASTIC COLUMN. William A. Brooks, Jr. and Thomas W. Wilder, III. March 1954. 29p. diagrs., 2 tabs. (NACA TN 3077)

BEAMS
(4.3.1.2)

INVESTIGATION OF SANDWICH CONSTRUCTION UNDER LATERAL AND AXIAL LOADS. Wilhelmina D. Kroll, Leonard Mordfin and William A. Garland, National Bureau of Standards. December 1953. 58p. diagrs., photos., 4 tabs. (NACA TN 3090)

SECTIONS
(4.3.1.3)

COLUMN STRENGTH OF H-SECTIONS AND SQUARE TUBES IN POSTBUCKLING RANGE OF COMPONENT PLATES. P. P. Bijlaard and G. P. Fisher. August 1953. 106p. diagrs., photos., 6 tabs. (NACA TN 2994)

FRAMES, GRIDWORKS, AND TRUSSES
(4.3.2)

EFFECTS OF PANEL FLEXIBILITY ON NATURAL VIBRATION FREQUENCIES OF BOX BEAMS. Bernard Budiansky and Robert W. Fralich. March 1954. 55p. diagrs. (NACA TN 3070)

PLATES
(4.3.3)

DEFLECTION AND STRESS ANALYSIS OF THIN SOLID WINGS OF ARBITRARY PLAN FORM WITH PARTICULAR REFERENCE TO DELTA WINGS. Manuel Stein, J. Edward Anderson and John M. Hedgepeth. 1953. ii, 20p. diagrs., photo. (NACA Rept. 1131. Formerly TN 2621)

PRELIMINARY INVESTIGATIONS OF STRENGTH CHARACTERISTICS OF STRUCTURAL ELEMENTS AT ELEVATED TEMPERATURES. Eldon E. Mathauser and Charles Libove. June 1953. 12p. diagrs. (NACA RM L53E04a)

STRUCTURAL EFFICIENCIES OF VARIOUS ALUMINUM, TITANIUM, AND STEEL ALLOYS AT ELEVATED TEMPERATURES. George J. Heimerl and Philip J. Hughes. July 1953. 16p. diagrs., tab. (NACA TN 2975)

AN APPROXIMATE METHOD OF CALCULATING THE DEFORMATIONS OF WINGS HAVING SWEPT, M OR W, Λ, AND SWEPT-TIP PLAN FORMS. George W. Zender and William A. Brooks, Jr. October 1953. 28p. diagrs., photo. (NACA TN 2978)

INVESTIGATION OF SANDWICH CONSTRUCTION UNDER LATERAL AND AXIAL LOADS. Wilhelmina D. Kroll, Leonard Mordfin and William A. Garland, National Bureau of Standards. December 1953. 58p. diagrs., photos., 4 tabs. (NACA TN 3090)

FLAT
(4. 3. 3. 1)

A STUDY OF ELASTIC AND PLASTIC STRESS CONCENTRATION FACTORS DUE TO NOTCHES AND FILLETS IN FLAT PLATES. Herbert F. Hardrath and Lachlan Ohman. 1953. ii, 10p. diagrs., tab. (NACA Rept. 1117. Formerly TN 2566)

DENSITY PROFILES OF SUBSONIC BOUNDARY LAYERS ON A FLAT PLATE DETERMINED BY X-RAY AND PRESSURE MEASUREMENTS. Ruth N. Welfmann and Perry W. Kuhns. February 1954. 30p. diagrs., photos. (NACA TN 3098)

Unstiffened
(4. 3. 3. 1. 1)

EFFECTS OF PANEL FLEXIBILITY ON NATURAL VIBRATION FREQUENCIES OF BOX BEAMS. Bernard Budiansky and Robert W. Fralich. March 1954. 55p. diagrs. (NACA TN 3070)

BUCKLING OF LONG SQUARE TUBES IN COMBINED COMPRESSION AND TORSION AND COMPARISON WITH FLAT-PLATE BUCKLING THEORIES. Roger W. Peters. May 1954. 15p. diagrs., photo. (NACA TN 3184)

Stiffened
(4. 3. 3. 1. 2)

PRELIMINARY EXPERIMENTS ON THE ELASTIC COMPRESSIVE BUCKLING OF PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow and William A. Hickman. July 1952. 13p. diagrs., photo., tab. (NACA RM L52E05)

EFFECT OF VARIATION IN RIVET STRENGTH ON THE AVERAGE STRESS AT MAXIMUM LOAD FOR ALUMINUM-ALLOY, FLAT, Z-STIFFENED COMPRESSION PANELS THAT FAIL BY LOCAL BUCKLING. Norris F. Dow, William A. Hickman and B. Walter Rosen. June 1953. 17p. diagrs., 2 tabs. (NACA TN 2963)

PRELIMINARY INVESTIGATIONS OF STRENGTH CHARACTERISTICS OF STRUCTURAL ELEMENTS AT ELEVATED TEMPERATURES. Eldon E. Mathauser and Charles Libove. June 1953. 12p. diagrs. (NACA RM L53E04a)

CHARTS RELATING THE COMPRESSIVE BUCKLING STRESS OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL AND ROTATIONAL STIFFNESS OF THE SUPPORTS. Roger A. Anderson and Joseph W. Semonian. August 1953. 53p. diagrs., 4 tabs. (NACA TN 2987)

FORMULAS FOR THE ELASTIC CONSTANTS OF PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow, Charles Libove and Ralph E. Hubka. August 1953. 67p. diagrs., tab. (NACA RM L53E13a)

SOME INFORMATION ON THE STRENGTH OF THICK-SKIN WINGS WITH MULTIWEB AND MULTIPOST STABILIZATION. Roger A. Anderson, Richard A. Pride and Aldie E. Johnson, Jr. August 1953. 19p. diagrs., 3 tabs. (NACA RM L53F16)

ELASTIC BUCKLING UNDER COMBINED STRESSES OF FLAT PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow, L. Ross Levin and John L. Troutman. January 1954. 19p. diagrs., photos., tab. (NACA TN 3059)

DATA ON THE COMPRESSIVE STRENGTH OF SKIN-STRINGER PANELS OF VARIOUS MATERIALS. Norris F. Dow, William A. Hickman and B. Walter Rosen. January 1954. 49p. diagrs., photo., 7 tabs. (NACA TN 3064)

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RESULTS OF EDGE-COMPRESSION TESTS ON STIFFENED FLAT-SHEET PANELS OF ALCLAD AND NONCLAD 14S-T6, 24S-T3, AND 75S-T6 ALUMINUM ALLOYS. Marshall Holt, Aluminum Company of America. April 1954. 18p. diagrs., photos., 2 tabs. (NACA TN 3023)

BEAMS
(4.3.4)

TRANSVERSE VIBRATIONS OF HOLLOW THIN-WALLED CYLINDRICAL BEAMS. Bernard Budiansky and Edwin T. Kruszewski. 1953. ii, 10p. diagrs. (NACA Rept. 1129. Formerly TN 2682)

DEFLECTION AND STRESS ANALYSIS OF THIN SOLID WINGS OF ARBITRARY PLAN FORM WITH PARTICULAR REFERENCE TO DELTA WINGS. Manuel Stein, J. Edward Anderson and John M. Hedgepeth. 1953. ii, 20p. diagrs., photo. (NACA Rept. 1131. Formerly TN 2621)

SOME INFORMATION ON THE STRENGTH OF THICK-SKIN WINGS WITH MULTIWEB AND MULTIPOST STABILIZATION. Roger A. Anderson, Richard A. Pride and Aldie E. Johnson, Jr. August 1953. 19p. diagrs., 3 tabs. (NACA RM L53F16)

AN APPROXIMATE METHOD OF CALCULATING THE DEFORMATIONS OF WINGS HAVING SWEPT, M OR W, Λ, AND SWEPT-TIP PLAN FORMS. George W. Zender and William A. Brooks, Jr. October 1953. 28p. diagrs., photo. (NACA TN 2978)

ANALYSIS OF SWEPTBACK WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. January 1954. 80p. diagrs., 5 tabs. (NACA TN 3115)

Beams (Cont.)

EXPERIMENTAL INVESTIGATION OF THE PURE-BENDING STRENGTH OF 75S-T6 ALUMINUM-ALLOY MULTIWEB BEAMS WITH FORMED-CHANNEL WEBS. Richard A. Pride and Melvin S. Anderson. March 1954. 30p. diagrs., photo., tab. (NACA TN 3082)

BOX
(4.3.4.1)

CHARTS RELATING THE COMPRESSIVE BUCKLING STRESS OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL AND ROTATIONAL STIFFNESS OF THE SUPPORTS. Roger A. Anderson and Joseph W. Semonian. August 1953. 53p. diagrs., 4 tabs. (NACA TN 2987)

ANALYSIS OF STRAIGHT MULTICELL WINGS ON CAL-TECH ANALOG COMPUTER. Stanley U. Benscoter and Richard H. MacNeal, California Institute of Technology. January 1954. 79p. diagrs., 4 tabs. (NACA TN 3113)

DESIGN DATA FOR MULTIPOST-STIFFENED WINGS IN BENDING. Roger A. Anderson, Aldie E. Johnson, Jr. and Thomas W. Wilder, III. January 1954. 31p. diagrs., 3 tabs. (NACA TN 3118)

A SUBSTITUTE-STRINGER APPROACH FOR INCLUDING SHEAR-LAG EFFECTS IN BOX-BEAM VIBRATIONS. William W. Davenport and Edwin T. Kruszewski. January 1954. 23p. diagrs., tab. (NACA TN 3158)

EFFECTS OF PANEL FLEXIBILITY ON NATURAL VIBRATION FREQUENCIES OF BOX BEAMS. Bernard Budiansky and Robert W. Fralich. March 1954. 55p. diagrs. (NACA TN 3070)

SHELLS
(4.3.5)

SOME INFORMATION ON THE STRENGTH OF THICK-SKIN WINGS WITH MULTIWEB AND MULTIPOST STABILIZATION. Roger A. Anderson, Richard A. Pride and Aldie E. Johnson, Jr. August 1953. 19p. diagrs., 3 tabs. (NACA RM L53F16)

CYLINDERS
(4.3.5.1)

TRANSVERSE VIBRATIONS OF HOLLOW THIN-WALLED CYLINDRICAL BEAMS. Bernard Budiansky and Edwin T. Kruszewski. 1953. ii, 10p. diagrs. (NACA Rept. 1129. Formerly TN 2682)

Circular
(4.3.5.1.1)

EXPERIMENTAL STRESS ANALYSIS OF STIFFENED CYLINDERS WITH CUTOUTS. PURE TORSION. Floyd R. Schlechte and Richard Rosecrans. November 1953. 41p. diagrs., 7 tabs. (NACA TN 3039)

EXPERIMENTAL STRESS ANALYSIS OF STIFFENED CYLINDERS WITH CUTOUTS. PURE BENDING. Floyd R. Schlechte and Richard Rosecrans. March 1954. 41p. diagrs., photo., 7 tabs. (NACA TN 3073)

Elliptical
(4.3.5.1.2)

STRESSES IN A TWO-BAY NONCIRCULAR CYLINDER UNDER TRANSVERSE LOADS. George E. Griffith. 1952. ii, 12p. diagrs., 3 tabs. (NACA Rept. 1097. Formerly TN 2512)

BOXES
(4.3.5.2)

STRESSES AROUND RECTANGULAR CUTOUTS IN TORSION BOXES. Paul Kuhn and James P. Peterson. December 1953. 71p. diagrs., 2 tabs. (NACA TN 3061)

ANALYSIS OF MULTICELL DELTA WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. December 1953. 84p. diagrs., 6 tabs. (NACA TN 3114)

A SUBSTITUTE-STRINGER APPROACH FOR INCLUDING SHEAR-LAG EFFECTS IN BOX-BEAM VIBRATIONS. William W. Davenport and Edwin T. Kruszewski. January 1954. 23p. diagrs., tab. (NACA TN 3158)

CONNECTIONS
(4.3.6)

THERMAL CONDUCTANCE OF CONTACTS IN AIRCRAFT JOINTS. Martin E. Barzelay, Kin Nee Tong and George Hollo, Syracuse University. March 1954. 47p. diagrs., photos., 2 tabs. (NACA TN 3167)

RIVETED
(4.3.6.2)

EFFECT OF VARIATION IN RIVET STRENGTH ON THE AVERAGE STRESS AT MAXIMUM LOAD FOR ALUMINUM-ALLOY, FLAT, Z-STIFFENED COMPRESSION PANELS THAT FAIL BY LOCAL BUCKLING. Norris F. Dow, William A. Hickman and B. Walter Rosen. June 1953. 17p. diagrs., 2 tabs. (NACA TN 2963)

Riveted - Connections (Cont.)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

BONDED
(4.3.6.4)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

LOADS AND STRESSES
(4.3.7)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LOADING OF SWEPT AND UNSWEPT WINGS. Franklin W. Diederich and Kenneth A. Foss. 1953. iii, 48p. diagrs., 3 tabs. (NACA Rept. 1140. Formerly TN 2608)

ACCELERATIONS AND PASSENGER HARNESS LOADS MEASURED IN FULL-SCALE LIGHT-AIRPLANE CRASHES. A. Martin Eiband, Scott H. Simpkinson and Dugald O. Black. August 1953. 67p. diagrs., photos. (NACA TN 2991)

CALIBRATION OF STRAIN-GAGE INSTALLATIONS IN AIRCRAFT STRUCTURES FOR THE MEASUREMENT OF FLIGHT LOADS. T. H. Skopinski, William S. Aiken, Jr. and Wilber B. Huston. August 1953. 70p. diagrs., 10 tabs. NACA TN 2993. Formerly RM L52G31)

EXPERIMENTAL STRESS ANALYSIS OF STIFFENED CYLINDERS WITH CUTOUTS. PURE TORSION. Floyd R. Schlechte and Richard Rosecrans. November 1953. 41p. diagrs., 7 tabs. (NACA TN 3039)

EXPERIMENTAL STRESS ANALYSIS OF STIFFENED CYLINDERS WITH CUTOUTS. PURE BENDING. Floyd R. Schlechte and Richard Rosecrans. March 1954. 41p. diagrs., photo., 7 tabs. (NACA TN 3073)

TENSION
(4.3.7.1)

A STUDY OF ELASTIC AND PLASTIC STRESS CONCENTRATION FACTORS DUE TO NOTCHES AND FILLETS IN FLAT PLATES. Herbert F. Hardrath and Lachlan Ohman. 1953. ii, 10p. diagrs., tab. (NACA Rept. 1117. Formerly TN 2566)

COMPRESSION
(4.3.7.2)

PRELIMINARY EXPERIMENTS ON THE ELASTIC COMPRESSIVE BUCKLING OF PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow and William A. Hickman. July 1952. 13p. diagrs., photo., tab. (NACA RM L52E05)

EFFECT OF VARIATION IN RIVET STRENGTH ON THE AVERAGE STRESS AT MAXIMUM LOAD FOR ALUMINUM-ALLOY, FLAT, Z-STIFFENED COMPRESSION PANELS THAT FAIL BY LOCAL BUCKLING. Norris F. Dow, William A. Hickman and B. Walter Rosen. June 1953. 17p. diagrs., 2 tabs. (NACA TN 2963)

CHARTS RELATING THE COMPRESSIVE BUCKLING STRESS OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL AND ROTATIONAL STIFFNESS OF THE SUPPORTS. Roger A. Anderson and Joseph W. Semonian. August 1953. 53p. diagrs., 4 tabs. (NACA TN 2987)

COLUMN STRENGTH OF H-SECTIONS AND SQUARE TUBES IN POSTBUCKLING RANGE OF COMPONENT PLATES. P. P. Bijlaard and G. P. Fisher. August 1953. 106p. diagrs., photos., 6 tabs. (NACA TN 2994)

INVESTIGATION OF SANDWICH CONSTRUCTION UNDER LATERAL AND AXIAL LOADS. Wilhelmina D. Kroll, Leonard Mordfin and William A. Garland, National Bureau of Standards. December 1953. 58p. diagrs., photos., 4 tabs. (NACA TN 3090)

ELASTIC BUCKLING UNDER COMBINED STRESSES OF FLAT PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow, L. Ross Levin and John L. Troutman. January 1954. 19p. diagrs., photos., tab. (NACA TN 3059)

DATA ON THE COMPRESSIVE STRENGTH OF SKIN-STRINGER PANELS OF VARIOUS MATERIALS. Norris F. Dow, William A. Hickman and B. Walter Rosen. January 1954. 49p. diagrs., photo., 7 tabs. (NACA TN 3064)

DESIGN DATA FOR MULTIPOST-STIFFENED WINGS IN BENDING. Roger A. Anderson, Aldie E. Johnson, Jr. and Thomas W. Wilder, III. January 1954. 31p. diagrs., 3 tabs. (NACA TN 3118)

CREEP BENDING AND BUCKLING OF LINEARLY VISCOELASTIC COLUMNS. Joseph Kempner, Polytechnic Institute of Brooklyn. January 1954. 22p. diagrs. (NACA TN 3136)

Compression - Loads and Stresses (Cont.)

CREEP BENDING AND BUCKLING OF NONLINEARLY VISCOELASTIC COLUMNS. Joseph Kempner, Polytechnic Institute of Brooklyn. January 1954. 27p. diagrs., 3 tabs. (NACA TN 3137)

CREEP BUCKLING OF COLUMNS. Joseph Kempner and Sharad A. Patel, Polytechnic Institute of Brooklyn. January 1954. 24p. diagrs., 2 tabs. (NACA TN 3138)

TIME-DEPENDENT BUCKLING OF A UNIFORMLY HEATED COLUMN. Nathan Ness, Polytechnic Institute of Brooklyn. January 1954. 18p. diagrs. (NACA TN 3139)

RESULTS OF EDGE-COMPRESSION TESTS ON STIFFENED FLAT-SHEET PANELS OF ALCLAD AND NONCLAD 14S-T6, 24S-T3, AND 75S-T6 ALUMINUM ALLOYS. Marshall Holt, Aluminum Company of America. April 1954. 18p. diagrs., photos., 2 tabs. (NACA TN 3023)

BUCKLING OF LONG SQUARE TUBES IN COMBINED COMPRESSION AND TORSION AND COMPARISON WITH FLAT-PLATE BUCKLING THEORIES. Roger W. Peters. May 1954. 15p. diagrs., photo. (NACA TN 3184)

BENDING (4.3.7.3)

DEFLECTION AND STRESS ANALYSIS OF THIN SOLID WINGS OF ARBITRARY PLAN FORM WITH PARTICULAR REFERENCE TO DELTA WINGS. Manuel Stein, J. Edward Anderson and John M. Hedgepeth. 1953. ii, 20p. diagrs., photo. (NACA Rept. 1131. Formerly TN 2621)

CHARTS RELATING THE COMPRESSIVE BUCKLING STRESS OF LONGITUDINALLY SUPPORTED PLATES TO THE EFFECTIVE DEFLECTIONAL AND ROTATIONAL STIFFNESS OF THE SUPPORTS. Roger A. Anderson and Joseph W. Semonian. August 1953. 53p. diagrs., 4 tabs. (NACA TN 2987)

SOME INFORMATION ON THE STRENGTH OF THICK-SKIN WINGS WITH MULTIWEB AND MULTIPOST STABILIZATION. Roger A. Anderson, Richard A. Pride and Aldie E. Johnson, Jr. August 1953. 19p. diagrs., 3 tabs. (NACA RM L53F16)

AN APPROXIMATE METHOD OF CALCULATING THE DEFORMATIONS OF WINGS HAVING SWEPT, M OR W, Λ, AND SWEPT-TIP PLAN FORMS. George W. Zender and William A. Brooks, Jr. October 1953. 28p. diagrs., photo. (NACA TN 2978)

ANALYSIS OF MULTICELL DELTA WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. December 1953. 84p. diagrs., 6 tabs. (NACA TN 3114)

ANALYSIS OF STRAIGHT MULTICELL WINGS ON CAL-TECH ANALOG COMPUTER. Stanley U. Benscoter and Richard H. MacNeal, California Institute of Technology. January 1954. 79p. diagrs., 4 tabs. (NACA TN 3113)

ANALYSIS OF SWEPTBACK WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. January 1954. 80p. diagrs., 5 tabs. (NACA TN 3115)

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EXPERIMENTAL STRESS ANALYSIS OF STIFFENED CYLINDERS WITH CUTOUTS. PURE BENDING. Floyd R. Schlechte and Richard Rosecrans. March 1954. 41p. diagrs., photo., 7 tabs. (NACA TN 3073)

EXPERIMENTAL INVESTIGATION OF THE PURE-BENDING STRENGTH OF 75S-T6 ALUMINUM-ALLOY MULTIWEB BEAMS WITH FORMED-CHANNEL WEBS. Richard A. Pride and Melvin S. Anderson. March 1954. 30p. diagrs., photo., tab. (NACA TN 3082)

TORSION (4.3.7.4)

DEFLECTION AND STRESS ANALYSIS OF THIN SOLID WINGS OF ARBITRARY PLAN FORM WITH PARTICULAR REFERENCE TO DELTA WINGS. Manuel Stein, J. Edward Anderson and John M. Hedgepeth. 1953. ii, 20p. diagrs., photo. (NACA Rept. 1131. Formerly TN 2621)

SOME INFORMATION ON THE STRENGTH OF THICK-SKIN WINGS WITH MULTIWEB AND MULTIPOST STABILIZATION. Roger A. Anderson, Richard A. Pride and Aldie E. Johnson, Jr. August 1953. 19p. diagrs., 3 tabs. (NACA RM L53F16)

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STRESSES AROUND RECTANGULAR CUTOUTS IN TORSION BOXES. Paul Kuhn and James P. Peterson. December 1953. 71p. diagrs., 2 tabs. (NACA TN 3061)

ANALYSIS OF MULTICELL DELTA WINGS ON CAL-TECH ANALOG COMPUTER. Richard H. MacNeal and Stanley U. Benscoter, California Institute of Technology. December 1953. 84p. diagrs., 6 tabs. (NACA TN 3114)

Torsion - Loads and Stresses (Cont.)

ANALYSIS OF STRAIGHT MULTICELL WINGS ON CAL-TECH ANALOG COMPUTER. Stanley U. Benscoter and Richard H. MacNeal, California Institute of Technology. January 1954. 79p. diagrs., 4 tabs. (NACA TN 3113)

BUCKLING OF LONG SQUARE TUBES IN COMBINED COMPRESSION AND TORSION AND COMPARISON WITH FLAT-PLATE BUCKLING THEORIES. Roger W. Peters. May 1954. 15p. diagrs., photo. (NACA TN 3184)

SHEAR
(4. 3. 7. 5)

BUCKLING OF LONG SQUARE TUBES IN COMBINED COMPRESSION AND TORSION AND COMPARISON WITH FLAT-PLATE BUCKLING THEORIES. Roger W. Peters. May 1954. 15p. diagrs., photo. (NACA TN 3184)

CONCENTRATED
(4. 3. 7. 6)

STRESSES IN A TWO-BAY NONCIRCULAR CYLINDER UNDER TRANSVERSE LOADS. George E. Griffith. 1952. ii, 12p. diagrs., 3 tabs. (NACA Rept. 1097. Formerly TN 2512)

A STUDY OF ELASTIC AND PLASTIC STRESS CONCENTRATION FACTORS DUE TO NOTCHES AND FILLETS IN FLAT PLATES. Herbert F. Hardrath and Lachlan Ohman. 1953. ii, 10p. diagrs., tab. (NACA Rept. 1117. Formerly TN 2566)

AXIAL-LOAD FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 61S-T6 ALUMINUM ALLOY, ANNEALED 347 STAINLESS STEEL, AND HEAT-TREATED 403 STAINLESS STEEL. Herbert F. Hardrath, Charles B. Landers and Elmer C. Utley, Jr. October 1953. 28p. diagrs., 4 tabs. (NACA TN 3017)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

DYNAMIC
(4. 3. 7. 7)

AN ITERATIVE TRANSFORMATION PROCEDURE FOR NUMERICAL SOLUTION OF FLUTTER AND SIMILAR CHARACTERISTIC-VALUE PROBLEMS. Myron L. Gossard. 1952. ii, 45p. diagrs., 9 tabs. (NACA Rept. 1073. Formerly TN 2346)

TRANSVERSE VIBRATIONS OF HOLLOW THIN-WALLED CYLINDRICAL BEAMS. Bernard Budiansky and Edwin T. Kruszewski. 1953. ii, 10p. diagrs. (NACA Rept. 1129. Formerly TN 2682)

AN EXPERIMENTAL INVESTIGATION OF WHEEL SPIN-UP DRAG LOADS. Benjamin Milwitzky, Dean C. Lindquist and Dexter M. Potter. June 1953. 18p. diagrs. (NACA RM L53E06b)

CORRELATION OF CALCULATION AND FLIGHT STUDIES OF THE EFFECT OF WING FLEXIBILITY ON STRUCTURAL RESPONSE DUE TO GUSTS. John C. Houbolt. August 1953. 14p. diagrs., tab. (NACA TN 3006)

A SUBSTITUTE-STRINGER APPROACH FOR INCLUDING SHEAR-LAG EFFECTS IN BOX-BEAM VIBRATIONS. William W. Davenport and Edwin T. Kruszewski. January 1954. 23p. diagrs., tab. (NACA TN 3158)

EFFECTS OF PANEL FLEXIBILITY ON NATURAL VIBRATION FREQUENCIES OF BOX BEAMS. Bernard Budiansky and Robert W. Fralich. March 1954. 55p. diagrs. (NACA TN 3070)

THE EFFECT OF DYNAMIC LOADING ON THE STRENGTH OF AN INELASTIC COLUMN. William A. Brooks, Jr. and Thomas W. Wilder, III. March 1954. 29p. diagrs., 2 tabs. (NACA TN 3077)

MEASUREMENT AND ANALYSIS OF WING AND TAIL BUFFETING LOADS ON A FIGHTER-TYPE AIRPLANE. Wilber B. Huston and T. H. Skopinski. May 1954. i, 86p. diagrs., photo., 8 tabs. (NACA TN 3080)

Repeated
(4. 3. 7. 7. 1)

AXIAL-LOAD FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 61S-T6 ALUMINUM ALLOY, ANNEALED 347 STAINLESS STEEL, AND HEAT-TREATED 403 STAINLESS STEEL. Herbert F. Hardrath, Charles B. Landers and Elmer C. Utley, Jr. October 1953. 28p. diagrs., 4 tabs. (NACA TN 3017)

FATIGUE TESTS AT STRESSES PRODUCING FAILURE IN 2 TO 10,000 CYCLES. 24S-T3 AND 75S-T6 ALUMINUM-ALLOY SHEET SPECIMENS WITH A THEORETICAL STRESS-CONCENTRATION FACTOR OF 4.0 SUBJECTED TO COMPLETELY REVERSED AXIAL LOAD. Herbert F. Hardrath and Walter Illg. January 1954. 14p. diagrs., photo., 2 tabs. (NACA TN 3132)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

Transient
(4.3.7.7.2)

GENERALIZED THEORY FOR SEAPLANE IMPACT. Benjamin Milwitzky. 1952. iii, 75p. diagrs., 4 tabs. (NACA Rept. 1103)

FLIGHT INVESTIGATION OF THE EFFECT OF TRANSIENT WING RESPONSE ON WING STRAINS OF A FOUR-ENGINE BOMBER AIRPLANE IN ROUGH AIR. Harold N. Murrow and Chester B. Payne. June 1953. 24p. diagrs., 2 tabs. (NACA TN 2951)

WEIGHT ANALYSIS (4.3.8)

CHARTS AND APPROXIMATE FORMULAS FOR THE ESTIMATION OF AEROELASTIC EFFECTS ON THE LOADING OF SWEPT AND UNSWEPT WINGS. Franklin W. Diederich and Kenneth A. Foss. 1953. iii, 48p. diagrs., 3 tabs. (NACA Rept. 1140. Formerly TN 2608)

WEIGHT BAR CHARTS. B. J. Saelman and H. W. Vick, Lockheed Aircraft Corporation. June 1953. 62p. diagrs., tab. (NACA RM 53B19)

MATERIALS
(5)

MATERIALS
(5)

A RESTRICTED LIST OF AIRCRAFT MATERIALS RESEARCH PROJECTS. Sponsored by Government Agencies. May 4, 1948. 95p. (NACA RM 8C29) (Declassified from Restricted, 12/14/53)

TEMPERATURES, THERMAL STRESS, AND SHOCK IN HEAT-GENERATING PLATES OF CONSTANT CONDUCTIVITY AND OF CONDUCTIVITY THAT VARIES LINEARLY WITH TEMPERATURE. S. V. Manson. July 1953. 62p. diagrs. (NACA TN 2988)

INVESTIGATION OF EFFECTS OF GRAIN SIZE UPON ENGINE LIFE OF CAST AMS 5385 GAS TURBINE BLADES. C. A. Hoffman and C. A. Gyorgak. July 1953. 21p. diagr., photos., 5 tabs. (NACA RM E53D06)

APPLICATION OF SILVER CHLORIDE IN INVESTIGATIONS OF ELASTO-PLASTIC STATES OF STRESS. L. E. Goodman and J. G. Sutherland, University of Illinois. November 1953. 55p. diagrs., photos., 4 tabs. (NACA TN 3043)

INVESTIGATION OF A CHROMIUM PLUS ALUMINUM OXIDE METAL-CERAMIC BODY FOR POSSIBLE GAS TURBINE BLADE APPLICATION. Charles A. Hoffman. November 1953. 12p. diagrs., photos., 4 tabs. (NACA RM E53G07)

INVESTIGATION OF EFFECT OF NOTCHES ON ELEVATED-TEMPERATURE FATIGUE STRENGTH OF N-155 ALLOY. C. A. Hoffman. April 1954. 8p. diagrs., tab. (NACA RM E53L31a)

Types
(5.1)

ALUMINUM
(5.1.1)

PRELIMINARY INVESTIGATION OF EFFECTS OF GAMMA RADIATION ON AGE-HARDENING RATE OF AN ALUMINUM-COPPER ALLOY. J. Howard Kittel. June 20, 1947. 4p. diagr. (NACA RM E7E12) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF EFFECTS OF ALPHA-PARTICLE BOMBARDMENT ON THE CREEP RATE OF ALUMINUM. J. Howard Kittel. July 3, 1947. 6p. diagrs. (NACA RM E7E13) (Declassified from Restricted, 12/14/53)

PRELIMINARY EXPERIMENTS ON THE ELASTIC COMPRESSIVE BUCKLING OF PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow and William A. Hickman. July 1952. 13p. diagrs., photo., tab. (NACA RM L52E05)

A STUDY OF ELASTIC AND PLASTIC STRESS CONCENTRATION FACTORS DUE TO NOTCHES AND FILLETS IN FLAT PLATES. Herbert F. Hardrath and Lachlan Ohman. 1953. ii, 10p. diagrs., tab. (NACA Rept. 1117. Formerly TN 2566)

EFFECT OF VARIATION IN RIVET STRENGTH ON THE AVERAGE STRESS AT MAXIMUM LOAD FOR ALUMINUM-ALLOY, FLAT, Z-STIFFENED COMPRESSION PANELS THAT FAIL BY LOCAL BUCKLING. Norris F. Dow, William A. Hickman and B. Walter Rosen. June 1953. 17p. diagrs., 2 tabs. (NACA TN 2963)

STRUCTURAL EFFICIENCIES OF VARIOUS ALUMINUM, TITANIUM, AND STEEL ALLOYS AT ELEVATED TEMPERATURES. George J. Heimerl and Philip J. Hughes. July 1953. 16p. diagrs., tab. (NACA TN 2975)

INVESTIGATION OF THE STATISTICAL NATURE OF THE FATIGUE OF METALS. G. E. Dieter and R. F. Mehl. Carnegie Institute of Technology. September 1953. 25p. diagrs., 5 tabs. (NACA TN 3019)

AXIAL-LOAD FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 61S-T6 ALUMINUM ALLOY, ANNEALED 347 STAINLESS STEEL, AND HEAT-TREATED 403 STAINLESS STEEL. Herbert F. Hardrath, Charles B. Landers and Elmer C. Utley, Jr. October 1953. 28p. diagrs., 4 tabs. (NACA TN 3017)

ELASTIC BUCKLING UNDER COMBINED STRESSES OF FLAT PLATES WITH INTEGRAL WAFFLE-LIKE STIFFENING. Norris F. Dow, L. Ross Levin and John L. Troutman. January 1954. 19p. diagrs., photos., tab. (NACA TN 3059)

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FATIGUE TESTS AT STRESSES PRODUCING FAILURE IN 2 TO 10,000 CYCLES. 24S-T3 AND 75S-T6 ALUMINUM-ALLOY SHEET SPECIMENS WITH A THEORETICAL STRESS-CONCENTRATION FACTOR OF 4.0 SUBJECTED TO COMPLETELY REVERSED AXIAL LOAD. Herbert F. Hardrath and Walter Illg. January 1954. 14p. diagrs., photo., 2 tabs. (NACA TN 3132)

ADDITIONAL FATIGUE TESTS ON EFFECTS OF DESIGN DETAILS IN 355-T6 SAND-CAST ALUMINUM ALLOY. I. D. Eaton and John A. Youra, Aluminum Company of America. March 1954. 24p. diagrs., photos., 5 tabs. (NACA RM 53L22)

MAGNESIUM
(5.1.2)

DATA ON THE COMPRESSIVE STRENGTH OF SKIN-STRINGER PANELS OF VARIOUS MATERIALS. Norris F. Dow, William A. Hickman and B. Walter Rosen. January 1954. 49p. diagrs., photo., 7 tabs. (NACA TN 3064)

STEELS
(5.1.3)

THERMAL CONDUCTIVITY OF 14 METALS AND ALLOYS UP TO 1100°F. Jerry E. Evans, Jr. March 2, 1951. 15p. diagrs., tab. (NACA RM E50L07) (Declassified from Restricted, 12/11/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. VII - ROTOR-BLADE FABRICATION PROCEDURES. Roger A. Long and Jack B. Esgar. September 1951. 30p. diagrs., photos. (NACA RM E51E23)

STRUCTURAL EFFICIENCIES OF VARIOUS ALUMINUM, TITANIUM, AND STEEL ALLOYS AT ELEVATED TEMPERATURES. George J. Heimerl and Philip J. Hughes. July 1953. 16p. diagrs., tab. (NACA TN 2975)

INVESTIGATION OF THE STATISTICAL NATURE OF THE FATIGUE OF METALS. G. E. Dieter and R. F. Mehl. Carnegie Institute of Technology. September 1953. 25p. diagrs., 5 tabs. (NACA TN 3019)

Steels (Cont.)

AXIAL-LOAD FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 61S-T6 ALUMINUM ALLOY, ANNEALED 347 STAINLESS STEEL, AND HEAT-TREATED 403 STAINLESS STEEL. Herbert F. Hardrath, Charles B. Landers and Elmer C. Utley, Jr. October 1953. 28p. diagrs., 4 tabs. (NACA TN 3017)

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PRELIMINARY INVESTIGATION OF THE "FREEZE-CASTING" METHOD FOR FORMING REFRACTORY POWDERS. W. A. Maxwell, R. S. Gurnick and A. C. Francisco. March 1954. 19p. diagrs., photos., 2 tabs. (NACA RM E53L21)

STATISTICAL STUDY OF OVERSTRESSING IN STEEL. G. E. Dieter, G. T. Horne and R. F. Mehl, Carnegie Institute of Technology. April 1954. 34p. diagrs., photos., 7 tabs. (NACA TN 3211)

HEAT-RESISTING ALLOYS (5.1.4)

RELATION OF NOZZLE-BLADE AND TURBINE-BUCKET TEMPERATURES TO GAS TEMPERATURES IN A TURBOJET ENGINE. J. Elmo Farmer. April 30, 1948. 37p. diagrs., photos. (NACA RM E7L12) (Declassified from Restricted, 12/14/53)

CYCLIC ENGINE OPERATION OF CAST VITALLIUM TURBINE BLADES AT AN EXHAUST-CONE GAS TEMPERATURE OF 1440 ± 20° F. Charles Yaker and Floyd B. Garrett. September 19, 1949. 41p. diagrs., photos., 4 tabs. (NACA RM E9G13) (Declassified from Restricted, 12/14/53)

PROPERTIES OF CERTAIN INTERMETALLICS AS RELATED TO ELEVATED-TEMPERATURE APPLICATIONS. I - MOLYBDENUM DISILICIDE. W. A. Maxwell. October 6, 1949. 27p. diagrs., 4 tabs. (NACA RM E9G01) (Declassified from Restricted, 12/14/53)

THERMAL CONDUCTIVITY OF 14 METALS AND ALLOYS UP TO 1100°F. Jerry E. Evans, Jr. March 2, 1951. 15p. diagrs., tab. (NACA RM E50L07) (Declassified from Restricted, 12/11/53)

PROPERTIES OF LOW-CARBON N-155 ALLOY BAR STOCK FROM 1200° TO 1800° F. J. W. Freeman and A. E. White, University of Michigan. May 3, 1951. 103p. diagrs., photos., 21 tabs. (NACA RM 51B05) (Declassified from Restricted, 12/11/53)

RESISTANCE OF VARIOUS MATERIALS TO ATTACK BY MOLTEN BISMUTH-LEAD EUTECTIC AT ELEVATED TEMPERATURES. James J. Gangler and Walter J. Engel. September 1951. 14p. diagrs., photos., 2 tabs. (NACA RM E51F21)

OXIDATION-RESISTANCE MECHANISM AND OTHER PROPERTIES OF MOLYBDENUM DISILICIDE. W. A. Maxwell. March 1952. 17p. diagrs., photos., tab. (NACA RM E52A04)

EFFECT OF MAGNITUDE OF VIBRATORY LOAD SUPERIMPOSED ON MEAN TENSILE LOAD OF MECHANISM OF AND TIME TO FRACTURE OF SPECIMENS AND CORRELATION TO ENGINE BLADE. Robert R. Ferguson. November 1952. 26p. diagrs., photos., 4 tabs. (NACA RM E52I17)

BEHAVIOR OF MATERIALS UNDER CONDITIONS OF THERMAL STRESS. S. S. Manson. July 1953. 105p. diagrs., photos., 6 tabs. (NACA TN 2933)

EFFECT OF PRESTRAINING ON RECRYSTALLIZATION TEMPERATURE AND MECHANICAL PROPERTIES OF COMMERCIAL, SINTERED, WROUGHT MOLYBDENUM. Kenneth C. Dike and Roger A. Long. July 1953. 25p. diagrs., photos., 3 tabs. (NACA TN 2973)

INVESTIGATION OF EFFECTS OF GRAIN SIZE UPON ENGINE LIFE OF CAST AMS 5385 GAS TURBINE BLADES. C. A. Hoffman and C. A. Gyorgak. July 1953. 21p. diagr., photos., 5 tabs. (NACA RM E53D06)

EFFECT OF HEAT TREATMENT UPON THE MICROSTRUCTURE AND HARDNESS OF A WROUGHT COBALT-BASE ALLOY STELLITE 21 (AMS 5385). F. J. Clauss and J. W. Weeton. March 1954. 26p. diagrs., photos. (NACA TN 3107)

RELATION OF MICROSTRUCTURE TO HIGH-TEMPERATURE PROPERTIES OF A WROUGHT COBALT-BASE ALLOY STELLITE 21 (AMS 5385). F. J. Clauss and J. W. Weeton. March 1954. 49p. diagrs., photos., tab. (NACA TN 3108)

AN INVESTIGATION OF LAMELLAR STRUCTURES AND MINOR PHASES IN ELEVEN COBALT-BASE ALLOYS BEFORE AND AFTER HEAT TREATMENT. J. W. Weeton and R. A. Signorelli. March 1954. 50p. diagrs., photos., 12 tabs. (NACA TN 3109)

A FURTHER INVESTIGATION OF THE EFFECT OF SURFACE FINISH ON FATIGUE PROPERTIES AT ELEVATED TEMPERATURES. Robert L. Ferguson. March 1954. 27p. diagrs., photos., 3 tabs. (NACA TN 3142)

INVESTIGATION OF EFFECT OF NOTCHES ON ELEVATED-TEMPERATURE FATIGUE STRENGTH OF N-155 ALLOY. C. A. Hoffman. April 1954. 8p. diagrs., tab. (NACA RM E53L31a)

Heat-Resisting Alloys (Cont.)

EVALUATION OF ALLOYS FOR VACUUM BRAZING OF SINTERED WROUGHT MOLYBDENUM FOR ELEVATED-TEMPERATURE APPLICATIONS. Kenneth C. Dike. May 1954. 13p. diagrs., photos., 2 tabs. (NACA TN 3148)

CERAMICS
(5.1.5)

PROPERTIES OF CERTAIN INTERMETALLICS AS RELATED TO ELEVATED-TEMPERATURE APPLICATIONS. I - MOLYBDENUM DISILICIDE. W. A. Maxwell. October 6, 1949. 27p. diagrs., 4 tabs. (NACA RM E9G01) (Declassified from Restricted, 12/14/53)

RESISTANCE OF VARIOUS MATERIALS TO ATTACK BY MOLTEN BISMUTH-LEAD EUTECTIC AT ELEVATED TEMPERATURES. James J. Gangler and Walter J. Engel. September 1951. 14p. diagrs., photos., 2 tabs. (NACA RM E51F21)

OXIDATION-RESISTANCE MECHANISM AND OTHER PROPERTIES OF MOLYBDENUM DISILICIDE. W. A. Maxwell. March 1952. 17p. diagrs., photos., tab. (NACA RM E52A04)

RELATIVE IMPORTANCE OF VARIOUS SOURCES OF DEFECT-PRODUCING HYDROGEN INTRODUCED INTO STEEL DURING APPLICATION OF VITREOUS COATINGS. Dwight G. Moore, Mary A. Mason and William N. Harrison, National Bureau of Standards. 1953. 12p. photos., diagrs., 5 tabs. (NACA Rept. 1120. Formerly TN 2617)

THERMAL-SHOCK RESISTANCE OF A CERAMIC COMPRISING 60 PERCENT BORON CARBIDE AND 40 PERCENT TITANIUM DIBORIDE. C. M. Yeomans and C. A. Hoffman. March 1953. 7p. photos., 3 tab. (NACA RM E52L31)

THE GALVANIC CORROSION THEORY FOR ADHERENCE OF PORCELAIN-ENAMEL GROUND COATS TO STEEL. D. G. Moore, J. W. Pitts, J. C. Richmond and W. N. Harrison, National Bureau of Standards. June 1953. 19p. diagrs., photos. (NACA TN 2935)

BEHAVIOR OF MATERIALS UNDER CONDITIONS OF THERMAL STRESS. S. S. Manson. July 1953. 105p. diagrs., photos., 6 tabs. (NACA TN 2933)

THERMAL SHOCK RESISTANCE AND HIGH-TEMPERATURE STRENGTH OF A MOLYBDENUM DISILICIDE - ALUMINUM OXIDE CERAMIC. W. A. Maxwell and R. W. Smith. October 1953. 8p. photo., 4 tabs. (NACA RM E53F26)

PRELIMINARY INVESTIGATION OF THE "FREEZE-CASTING" METHOD FOR FORMING REFRACTORY POWDERS. W. A. Maxwell, R. S. Gurnick and A. C. Francisco. March 1954. 19p. diagrs., photos., 2 tabs. (NACA RM E53L21)

PLASTICS
(5.1.6)

EFFECTS OF MOLECULAR WEIGHT ON CRAZING AND TENSILE PROPERTIES OF POLYMETHYL METHACRYLATE. I. Wolock, M. A. Sherman and B. M. Axilrod, National Bureau of Standards. February 1954. 11p. diagrs., tab. (NACA RM 54A04)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

ADHESIVES
(5.1.8)

DEVELOPMENT OF METAL-BONDING ADHESIVE FPL-710 WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. July 8, 1952. 10p. 2 tabs. (NACA RM 52F19) (Declassified from Confidential, 1/22/54)

DEVELOPMENT OF METAL-BONDING ADHESIVES WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. May 1954. 12p., 3 tabs. (NACA RM 54D01)

PROTECTIVE COATINGS
(5.1.9)

RELATIVE IMPORTANCE OF VARIOUS SOURCES OF DEFECT-PRODUCING HYDROGEN INTRODUCED INTO STEEL DURING APPLICATION OF VITREOUS COATINGS. Dwight G. Moore, Mary A. Mason and William N. Harrison, National Bureau of Standards. 1953. 12p. photos., diagrs., 5 tabs. (NACA Rept. 1120. Formerly TN 2617)

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ELECTROSTATIC SPARK IGNITION-SOURCE HAZARD IN AIRPLANE CRASHES. Arthur M. Busch. October 1953. 28p. diagrs., photos., tab. (NACA TN 3026)

SANDWICH & LAMINATES (5.1.11)

INVESTIGATION OF SANDWICH CONSTRUCTION UNDER LATERAL AND AXIAL LOADS. Wilhelmina D. Kroll, Leonard Mordfin and William A. Garland, National Bureau of Standards. December 1953. 58p. diagrs., photos., 4 tabs. (NACA TN 3090)

CERAMALS (5.1.12)

PROPERTIES OF CERTAIN INTERMETALLICS AS RELATED TO ELEVATED-TEMPERATURE APPLICATIONS. I - MOLYBDENUM DISILICIDE. W. A. Maxwell. October 6, 1949. 27p. diagrs., 4 tabs. (NACA RM E9G01) (Declassified from Restricted, 12/14/53)

RESISTANCE OF VARIOUS MATERIALS TO ATTACK BY MOLTEN BISMUTH-LEAD EUTECTIC AT ELEVATED TEMPERATURES. James J. Gangler and Walter J. Engel. September 1951. 14p. diagrs., photos., 2 tabs. (NACA RM E51F21)

INVESTIGATION OF TITANIUM CARBIDE BASE CERAMALS CONTAINING EITHER NICKEL OR COBALT FOR USE AS GAS-TURBINE BLADES. C. A. Hoffman and A. L. Cooper. August 1952. 33p. photos., diagrs., 5 tabs. (NACA RM E52H05)

PRELIMINARY INVESTIGATION OF ZIRCONIUM BORIDE CERAMALS FOR GAS-TURBINE BLADE APPLICATIONS. Charles A. Hoffman. April 1953. 13p. photos., diagrs., 2 tabs. (NACA RM E52L15a)

BEHAVIOR OF MATERIALS UNDER CONDITIONS OF THERMAL STRESS. S. S. Manson. July 1953. 105p. diagrs., photos., 6 tabs. (NACA TN 2933)

TEMPERATURES, THERMAL STRESS, AND SHOCK IN HEAT-GENERATING PLATES OF CONSTANT CONDUCTIVITY AND OF CONDUCTIVITY THAT VARIES LINEARLY WITH TEMPERATURE. S. V. Manson. July 1953. 62p. diagrs. (NACA TN 2988)

THERMAL SHOCK RESISTANCE AND HIGH-TEMPERATURE STRENGTH OF A MOLYBDENUM DISILICIDE - ALUMINUM OXIDE CERAMIC. W. A. Maxwell and R. W. Smith. October 1953. 8p. photo., 4 tabs. (NACA RM E53F26)

INVESTIGATION OF A CHROMIUM PLUS ALUMINUM OXIDE METAL-CERAMIC BODY FOR POSSIBLE GAS TURBINE BLADE APPLICATION. Charles A. Hoffman. November 1953. 12p. diagrs., photos., 4 tabs. (NACA RM E53G07)

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EFFECTS OF SOME METAL ADDITIONS ON PROPERTIES OF MOLYBDENUM DISILICIDE. H. A. DeVincentis and W. E. Russell. May 1954. 22p. diagrs., photos., 6 tabs. (NACA RM E54B15)

Properties

(5.2)

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EFFECT OF TYPE OF POROUS SURFACE AND SUCTION VELOCITY DISTRIBUTION ON THE CHARACTERISTICS OF A 10.5-PERCENT-THICK AIRFOIL WITH AREA SUCTION. Robert E. Dannenberg and James A. Weiberg. December 1953. 59p. diagrs., photos., 5 tabs. (NACA TN 3093)

THE RESISTANCE TO AIR FLOW OF POROUS MATERIALS SUITABLE FOR BOUNDARY-LAYER-CONTROL APPLICATIONS USING AREA SUCTION. Robert E. Dannenberg, James A. Weiberg and Bruno J. Gambucci. January 1954. 21p. diagrs., photos., tab. (NACA TN 3094)

INVESTIGATION OF EFFECT OF NOTCHES ON ELEVATED-TEMPERATURE FATIGUE STRENGTH OF N-155 ALLOY. C. A. Hoffman. April 1954. 8p. diagrs., tab. (NACA RM E53L31a)

TENSILE

(5.2.1)

DEVELOPMENT OF METAL-BONDING ADHESIVE FPL-710 WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. July 8, 1952. 10p. 2 tabs. (NACA RM 52F19) (Declassified from Confidential, 1/22/54)

A STUDY OF ELASTIC AND PLASTIC STRESS CONCENTRATION FACTORS DUE TO NOTCHES AND FILLETS IN FLAT PLATES. Herbert F. Hardrath and Lachlan Ohman. 1953. ii, 10p. diagrs., tab. (NACA Rept. 1117. Formerly TN 2566)

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ADDITIONAL FATIGUE TESTS ON EFFECTS OF DESIGN DETAILS IN 355-T6 SAND-CAST ALUMINUM ALLOY. I. D. Eaton and John A. Youra, Aluminum Company of America. March 1954. 24p. diagrs., photos., 5 tabs. (NACA RM 53L22)

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COMPRESSIVE

(5.2.2)

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CREEP
(5.2.3)

PRELIMINARY INVESTIGATION OF EFFECTS OF ALPHA-PARTICLE BOMBARDMENT ON THE CREEP RATE OF ALUMINUM. J. Howard Kittel. July 3, 1947. 6p. diagrs. (NACA RM E7E13) (Declassified from Restricted, 12/14/53)

PROPERTIES OF LOW-CARBON N-155 ALLOY BAR STOCK FROM 1200° TO 1800° F. J. W. Freeman and A. E. White, University of Michigan. May 3, 1951. 103p. diagrs., photos., 21 tabs. (NACA RM 51B05) (Declassified from Restricted, 12/11/53)

CREEP-BUCKLING ANALYSIS OF RECTANGULAR-SECTION COLUMNS. Charles Libove. June 1953. 24p. diagrs. (NACA TN 2956)

PRELIMINARY INVESTIGATIONS OF STRENGTH CHARACTERISTICS OF STRUCTURAL ELEMENTS AT ELEVATED TEMPERATURES. Eldon E. Mathauser and Charles Libove. June 1953. 12p. diagrs. (NACA RM L53E04a)

CREEP BENDING AND BUCKLING OF LINEARLY VISCOELASTIC COLUMNS. Joseph Kempner, Polytechnic Institute of Brooklyn. January 1954. 22p. diagrs. (NACA TN 3136)

CREEP BENDING AND BUCKLING OF NONLINEARLY VISCOELASTIC COLUMNS. Joseph Kempner, Polytechnic Institute of Brooklyn. January 1954. 27p. diagrs., 3 tabs. (NACA TN 3137)

CREEP BUCKLING OF COLUMNS. Joseph Kempner and Sharad A. Patel, Polytechnic Institute of Brooklyn. January 1954. 24p. diagrs., 2 tabs. (NACA TN 3138)

TIME-DEPENDENT BUCKLING OF A UNIFORMLY HEATED COLUMN. Nathan Ness, Polytechnic Institute of Brooklyn. January 1954. 18p. diagrs. (NACA TN 3139)

RELATION OF MICROSTRUCTURE TO HIGH-TEMPERATURE PROPERTIES OF A WROUGHT COBALT-BASE ALLOY STELLITE 21 (AMS 5385). F. J. Clauss and J. W. Weeton. March 1954. 49p. diagrs., photos., tab. (NACA TN 3108)

STRESS-RUPTURE
(5.2.4)

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FATIGUE
(5.2.5)

DEVELOPMENT OF METAL-BONDING ADHESIVE FPL-710 WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. July 8, 1952. 10p. 2 tabs. (NACA RM 52F19) (Declassified from Confidential, 1/22/54)

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FATIGUE TESTS AT STRESSES PRODUCING FAILURE IN 2 TO 10,000 CYCLES. 24S-T3 AND 75S-T6 ALUMINUM-ALLOY SHEET SPECIMENS WITH A THEORETICAL STRESS-CONCENTRATION FACTOR OF 4.0 SUBJECTED TO COMPLETELY REVERSED AXIAL LOAD. Herbert F. Hardrath and Walter Illg. January 1954. 14p. diagrs., photo., 2 tabs. (NACA TN 3132)

A FURTHER INVESTIGATION OF THE EFFECT OF SURFACE FINISH ON FATIGUE PROPERTIES AT ELEVATED TEMPERATURES. Robert L. Ferguson. March 1954. 27p. diagrs., photos., 3 tabs. (NACA TN 3142)

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Fatigue (Cont.)

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SHEAR
(5.2.6)

DEVELOPMENT OF METAL-BONDING ADHESIVE FPL-710 WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. July 8, 1952. 10p. 2 tabs. (NACA RM 52F19) (Declassified from Confidential, 1/22/54)

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FLEXURAL
(5.2.7)

DEVELOPMENT OF METAL-BONDING ADHESIVE FPL-710 WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. July 8, 1952. 10p. 2 tabs. (NACA RM 52F19) (Declassified from Confidential, 1/22/54)

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CORROSION RESISTANCE
(5.2.8)

PRELIMINARY STUDY OF CIRCULATION IN AN APPARATUS SUITABLE FOR DETERMINING CORROSIVE EFFECTS OF HOT FLOWING LIQUIDS. Leland G. Desmon and Don R. Mosher. June 1951. 17p. diagrs., photos. (NACA RM E51D12)

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COEFFICIENT OF FRICTION AND DAMAGE TO CONTACT AREA DURING THE EARLY STAGES OF FRETTING. I - GLASS, COPPER, OR STEEL AGAINST COPPER. Douglas Godfrey and John M. Bailey. September 1953. 23p. diagrs., photos., 2 tabs. (NACA TN 3011)

KINETIC STUDY OF MASS TRANSFER BY SODIUM HYDROXIDE IN NICKEL UNDER FREE-CONVECTION CONDITIONS. Don R. Mosher and Robert A. Lad. March 1954. 14p. diagrs., photo., tab. (NACA RM E53K24)

COEFFICIENT OF FRICTION AND DAMAGE TO CONTACT AREA DURING THE EARLY STAGES OF FRETTING. II - STEEL, IRON, IRON OXIDE, AND GLASS COMBINATIONS. John M. Bailey and Douglas Godfrey. April 1954. 26p. diagrs., 4 tabs. (NACA TN 3144)

STRUCTURE
(5.2.9)

PRELIMINARY STUDY OF CIRCULATION IN AN APPARATUS SUITABLE FOR DETERMINING CORROSIVE EFFECTS OF HOT FLOWING LIQUIDS. Leland G. Desmon and Don R. Mosher. June 1951. 17p. diagrs., photos. (NACA RM E51D12)

EFFECT OF PRESTRAINING ON RECRYSTALLIZATION TEMPERATURE AND MECHANICAL PROPERTIES OF COMMERCIAL, SINTERED, WROUGHT MOLYBDENUM. Kenneth C. Dike and Roger A. Long. July 1953. 25p. diagrs., photos., 3 tabs. (NACA TN 2973)

EFFECT OF HEAT TREATMENT UPON THE MICROSTRUCTURE AND HARDNESS OF A WROUGHT COBALT-BASE ALLOY STELLITE 21 (AMS 5385). F. J. Clauss and J. W. Weeton. March 1954. 26p. diagrs., photos. (NACA TN 3107)

RELATION OF MICROSTRUCTURE TO HIGH-TEMPERATURE PROPERTIES OF A WROUGHT COBALT-BASE ALLOY STELLITE 21 (AMS 5385). F. J. Clauss and J. W. Weeton. March 1954. 49p. diagrs., photos., tab. (NACA TN 3108)

Structure (Cont.)

AN INVESTIGATION OF LAMELLAR STRUCTURES AND MINOR PHASES IN ELEVEN COBALT-BASE ALLOYS BEFORE AND AFTER HEAT TREATMENT. J. W. Weeton and R. A. Signorelli. March 1954. 50p. diagrs., photos., 12 tabs. (NACA TN 3109)

EVALUATION OF ALLOYS FOR VACUUM BRAZING OF SINTERED WROUGHT MOLYBDENUM FOR ELEVATED-TEMPERATURE APPLICATIONS. Kenneth C. Dike. May 1954. 13p. diagrs., photos., 2 tabs. (NACA TN 3148)

EFFECTS OF NUCLEAR RADIATION (5.2.10)

PRELIMINARY INVESTIGATION OF EFFECTS OF GAMMA RADIATION ON AGE-HARDENING RATE OF AN ALUMINUM-COPPER ALLOY. J. Howard Kittel. June 20, 1947. 4p. diagr. (NACA RM E7E12) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF EFFECTS OF ALPHA-PARTICLE BOMBARDMENT ON THE CREEP RATE OF ALUMINUM. J. Howard Kittel. July 3, 1947. 6p. diagrs. (NACA RM E7E13) (Declassified from Restricted, 12/14/53)

THERMAL (5.2.11)

THERMAL CONDUCTIVITY OF 14 METALS AND ALLOYS UP TO 1100°F. Jerry E. Evans, Jr. March 2, 1951. 15p. diagrs., tab. (NACA RM E50L07) (Declassified from Restricted, 12/11/53)

DEVELOPMENT OF METAL-BONDING ADHESIVE FPL-710 WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. July 8, 1952. 10p. 2 tabs. (NACA RM 52F19) (Declassified from Confidential, 1/22/54)

THERMAL-SHOCK RESISTANCE OF A CERAMIC COMPRISING 60 PERCENT BORON CARBIDE AND 40 PERCENT TITANIUM DIBORIDE. C. M. Yeomans and C. A. Hoffman. March 1953. 7p. photos., 3 tab. (NACA RM E52L31)

PRELIMINARY INVESTIGATION OF ZIRCONIUM BORIDE CERAMALS FOR GAS-TURBINE BLADE APPLICATIONS. Charles A. Hoffman. April 1953. 13p. photos., diagrs., 2 tabs. (NACA RM E52L15a)

PRELIMINARY INVESTIGATIONS OF STRENGTH CHARACTERISTICS OF STRUCTURAL ELEMENTS AT ELEVATED TEMPERATURES. Eldon E. Mathauser and Charles Libove. June 1953. 12p. diagrs. (NACA RM L53E04a)

EFFECTIVE THERMAL CONDUCTIVITIES OF MAGNESIUM OXIDE, STAINLESS STEEL, AND URANIUM OXIDE POWDERS IN VARIOUS GASES. C. S. Elan and R. G. Deissler. October 1953. 18p. diagrs., photos., tab. (NACA RM E53G03)

EXPERIMENTAL DETERMINATION OF THERMAL CONDUCTIVITY OF LOW-DENSITY ICE. Willard D. Coles. March 1954. 12p. diagrs., photo. (NACA TN 3143)

THERMAL CONDUCTANCE OF CONTACTS IN AIRCRAFT JOINTS. Martin E. Barzelay, Kin Nee Tong and George Hollo, Syracuse University. March 1954. 47p. diagrs., photos., 2 tabs. (NACA TN 3167)

DEVELOPMENT OF METAL-BONDING ADHESIVES WITH IMPROVED HEAT-RESISTANT PROPERTIES. John M. Black and R. F. Blomquist, Forest Products Laboratory. May 1954. 12p., 3 tabs. (NACA RM 54D01)

PLASTICITY (5.2.13)

A STUDY OF ELASTIC AND PLASTIC STRESS CONCENTRATION FACTORS DUE TO NOTCHES AND FILLETS IN FLAT PLATES. Herbert F. Hardrath and Lachlan Ohman. 1953. ii, 10p. diagrs., tab. (NACA Rept. 1117. Formerly TN 2566)

AXIAL-LOAD FATIGUE TESTS ON NOTCHED AND UNNOTCHED SHEET SPECIMENS OF 61S-T6 ALUMINUM ALLOY, ANNEALED 347 STAINLESS STEEL, AND HEAT-TREATED 403 STAINLESS STEEL. Herbert F. Hardrath, Charles B. Landers and Elmer C. Utley, Jr. October 1953. 28p. diagrs., 4 tabs. (NACA TN 3017)

THE EFFECT OF DYNAMIC LOADING ON THE STRENGTH OF AN INELASTIC COLUMN. William A. Brooks, Jr. and Thomas W. Wilder, III. March 1954. 29p. diagrs., 2 tabs. (NACA TN 3077)

BUCKLING OF LONG SQUARE TUBES IN COMBINED COMPRESSION AND TORSION AND COMPARISON WITH FLAT-PLATE BUCKLING THEORIES. Roger W. Peters. May 1954. 15p. diagrs., photo. (NACA TN 3184)

Operating Stresses and Conditions (5.3)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. I - STATIC INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 34p. diagrs., photos., 2 tabs. (NACA RM E8J22) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. II - DYNAMIC INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 25p. diagrs., photos. (NACA RM E8J22a) (Declassified from Restricted, 12/14/53)

VIBRATION SURVEY OF BLADES IN 10-STAGE AXIAL-FLOW COMPRESSOR. III - PRELIMINARY ENGINE INVESTIGATION. Andre J. Meyer, Jr. and Howard F. Calvert. January 31, 1949. 23p. diagrs., photo. (NACA RM E8J22b) (Declassified from Restricted, 12/14/53)

EFFECTS OF OBSTRUCTIONS IN COMPRESSOR INLET ON BLADE VIBRATION IN 10-STAGE AXIAL-FLOW COMPRESSOR. Andre J. Meyer, Jr., Howard F. Calvert and C. Robert Morse. February 13, 1950. 16p. diagrs. (NACA RM E9L05) (Declassified from Restricted, 12/14/53)

ANALYSIS OF V-g DATA OBTAINED FROM SEVERAL NAVAL AIRPLANES. James O. Thornton. July 7, 1950. 28p. diagrs., 4 tabs. (NACA RM L9L13) (Declassified from Restricted, 12/14/53)

PRELIMINARY INVESTIGATION OF ZIRCONIUM BORIDE CERAMALS FOR GAS-TURBINE BLADE APPLICATIONS. Charles A. Hoffman. April 1953. 13p. photos., diagrs., 2 tabs. (NACA RM E52L15a)

TEMPERATURES, THERMAL STRESS, AND SHOCK IN HEAT-GENERATING PLATES OF CONSTANT CONDUCTIVITY AND OF CONDUCTIVITY THAT VARIES LINEARLY WITH TEMPERATURE. S. V. Manson. July 1953. 62p. diagrs. (NACA TN 2988)

PROPULSION SYSTEM (5.3.2)

RELATION OF NOZZLE-BLADE AND TURBINE-BUCKET TEMPERATURES TO GAS TEMPERATURES IN A TURBOJET ENGINE. J. Elmo Farmer. April 30, 1948. 37p. diagrs., photos. (NACA RM E7L12) (Declassified from Restricted, 12/14/53)

OPERATING TEMPERATURES OF I-40-5 TURBOJET ENGINE BURNER LINERS AND THE EFFECT OF TEMPERATURE VARIATION ON BURNER-LINER SERVICE LIFE. H. D. Wilsted, Robert T. Duffy and Ralph E. Grey. August 23, 1948. 25p. diagrs., photos. (NACA RM E8F29) (Declassified from Restricted, 12/14/53)

VIBRATION OF LOOSELY MOUNTED TURBINE BLADES DURING SERVICE OPERATION OF A TURBOJET ENGINE WITH CENTRIFUGAL COMPRESSOR AND STRAIGHT-FLOW COMBUSTION CHAMBERS. W. C. Morgan, R. H. Kemp and S. S. Manson. November 3, 1949. 18p. diagrs., photos. (NACA RM E9I07) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF AIR-COOLED TURBINE BLADES IN TURBOJET ENGINE. IX - EVALUATION OF THE DURABILITY OF NONCRITICAL ROTOR BLADES IN ENGINE OPERATION. Francis S. Stepka and Robert O. Hickel. December 1951. 26p. diagrs., photos., 4 tabs. (NACA RM E51J10)

EFFECT OF MAGNITUDE OF VIBRATORY LOAD SUPERIMPOSED ON MEAN TENSILE LOAD OF MECHANISM OF AND TIME TO FRACTURE OF SPECIMENS AND CORRELATION TO ENGINE BLADE. Robert R. Ferguson. November 1952. 26p. diagrs., photos., 4 tabs. (NACA RM E52I17)

METEOROLOGY
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IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

SUPERSATURATION IN THE SPONTANEOUS FORMATION OF NUCLEI IN WATER VAPOR. (Übersättigung bei der spontanen Keimbildung in Wasserdampf). Adolf Sander and Gerhard Damköhler. November 1953. 19p. diagrs. (NACA TM 1368. Trans. from Naturwissenschaften, v. 31, no. 39/40, September 24, 1943. p. 460-465).

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

Atmosphere
(6.1)

MEASUREMENTS OF PRESSURE AND TEMPERATURE FOR APPRAISAL OF THE TEMPERATURE METHOD OF AIRSPEED CALIBRATION IN THE LOWER STRATOSPHERE. Lindsay J. Lina. March 1954. 12p. diagrs., photo. (NACA TN 3075)

STANDARD ATMOSPHERE
(6.1.1)

MANUAL OF THE ICAO STANDARD ATMOSPHERE. CALCULATIONS BY THE NACA. International Civil Aviation Organization, Montreal, Canada and Langley Aeronautical Laboratory, Langley Field, Va., U.S.A. May 1954. iii, 132p. incl. 102p. tabs., diagrs. (NACA TN 3182. Supersedes and extends NACA Rept. 218)

GUSTS
(6.1.2)

AN EXPERIMENTAL STUDY OF THE RELATION BETWEEN AIRPLANE AND WIND-VANE MEASUREMENTS OF ATMOSPHERIC TURBULENCE. H. B. Tolefson, K. G. Pratt and J. K. Thompson. July 1953. 20p. diagrs., photos., 3 tabs. (NACA RM L52L29b)

AN ANALYSIS OF NORMAL-ACCELERATION AND AIRSPEED DATA FROM A FOUR-ENGINE TYPE OF TRANSPORT AIRPLANE IN COMMERCIAL OPERATION ON AN EASTERN UNITED STATES ROUTE FROM NOVEMBER 1947 TO FEBRUARY 1950. Thomas L. Coleman and Paul W. J. Schumacher. August 1953. 27p. diagrs., 5 tabs. (NACA TN 2965)

CORRELATION OF CALCULATION AND FLIGHT STUDIES OF THE EFFECT OF WING FLEXIBILITY ON STRUCTURAL RESPONSE DUE TO GUSTS. John C. Houbolt. August 1953. 14p. diagrs., tab. (NACA TN 3006)

SUMMARY OF REVISED GUST-VELOCITY DATA OBTAINED FROM V-G RECORDS TAKEN ON CIVIL TRANSPORT AIRPLANES FROM 1933 TO 1950. Walter G. Walker. November 1953. 16p. diagrs., 4 tabs. (NACA TN 3041)

GUST LOADS AND OPERATING AIRSPEEDS OF ONE TYPE OF FOUR-ENGINE TRANSPORT AIRPLANE ON THREE ROUTES FROM 1949 TO 1953. Walter G. Walker. November 1953. 34p. diagrs., 4 tabs. (NACA TN 3051)

STRUCTURE
(6.1.2.1)

NOTES ON THE GUST PROBLEM FOR HIGH-SPEED LOW-ALTITUDE BOMBERS. Langley Gust Loads Branch. June 5, 1952. 23p. diagrs., 3 tabs. (NACA RM L52E22) (Declassified from Secret, 11/10/53)

FREQUENCY
(6.1.2.2)

NOTES ON THE GUST PROBLEM FOR HIGH-SPEED LOW-ALTITUDE BOMBERS. Langley Gust Loads Branch. June 5, 1952. 23p. diagrs., 3 tabs. (NACA RM L52E22) (Declassified from Secret, 11/10/53)

SUMMARY OF PILOTS' REPORTS OF CLEAR-AIR TURBULENCE AT ALTITUDES ABOVE 10,000 FEET. Harry Press, Martin H. Schindler and James K. Thompson. March 1953. 18p. diagrs., 5 tabs. (NACA RM L52L30a)

ELECTRICITY
(6.1.3)

ELECTROSTATIC SPARK IGNITION-SOURCE HAZARD IN AIRPLANE CRASHES. Arthur M. Busch. October 1953. 28p. diagrs., photos., tab. (NACA TN 3026)

Ice Formation
(6.2)

AN EMPIRICALLY DERIVED BASIS FOR CALCULATING THE AREA, RATE, AND DISTRIBUTION OF WATER-DROP IMPINGEMENT ON AIRFOILS. Norman R. Bergrun. 1952. ii, 21p. diagrs., 6 tabs. (NACA Rept. 1107)

EXPERIMENTAL INVESTIGATION OF RADOME ICING AND ICING PROTECTION. James P. Lewis and Robert J. Blade. January 1953. 60p. diagrs., photos. (NACA RM E52J31)

PROCEDURE FOR MEASURING LIQUID-WATER CONTENT AND DROPLET SIZES IN SUPERCOOLED CLOUDS BY ROTATING MULTICYLINDER METHOD. William Lewis, Porter J. Perkins and Rinaldo J. Brun. Appendix C: ALTERNATE METHOD OF REDUCING ROTATING MULTICYLINDER DATA. Paul T. Hacker. June 1953. 48p. diagrs., photos., 4 tabs. (NACA RM E53D23)

IMPINGEMENT OF WATER DROPLETS ON WEDGES AND DIAMOND AIRFOILS AT SUPERSONIC SPEEDS. John S. Serafini. July 1953. 62p. diagrs. (NACA TN 2971)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF A FLUSH ALTERNATE-INLET INDUCTION-SYSTEM AIR SCOOP. James P. Lewis. July 1953. 42p. diagrs., photos. (NACA RM E53E07)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

MAXIMUM EVAPORATION RATES OF WATER DROPLETS APPROACHING OBSTACLES IN THE ATMOSPHERE UNDER ICING CONDITIONS. Herman H. Lowell. October 1953. 56p. diagrs., 3 tabs. (NACA TN 3024)

AN INVESTIGATION UTILIZING AN ELECTRICAL ANALOGUE OF CYCLIC DE-ICING OF HOLLOW STEEL PROPELLERS WITH INTERNAL ELECTRIC HEATERS. Carr B. Neel, Jr. October 1953. 31p. diagrs., photo., 3 tabs. (NACA TN 3025)

IMPINGEMENT OF WATER DROPLETS ON NACA 65A004 AIRFOIL AND EFFECT OF CHANGE IN AIRFOIL THICKNESS FROM 12 TO 4 PERCENT AT 4° ANGLE OF ATTACK. Rinaldo J. Brun, Helen M. Gallagher and Dorothea E. Vogt. November 1953. 45p. diagrs., tab. (NACA TN 3047)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

EXPERIMENTAL DETERMINATION OF THERMAL CONDUCTIVITY OF LOW-DENSITY ICE. Willard D. Coles. March 1954. 12p. diagrs., photo. (NACA TN 3143)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

OPERATING PROBLEMS

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STUDY OF INADVERTENT SPEED INCREASES IN TRANSPORT OPERATION. Henry A. Pearson. 1953. ii, 11p. diagrs., tab. (NACA Rept. 1138. Formerly TN 2638)

AN ANALYSIS OF NORMAL-ACCELERATION AND AIRSPEED DATA FROM A FOUR-ENGINE TYPE OF TRANSPORT AIRPLANE IN COMMERCIAL OPERATION ON AN EASTERN UNITED STATES ROUTE FROM NOVEMBER 1947 TO FEBRUARY 1950. Thomas L. Coleman and Paul W. J. Schumacher. August 1953. 27p. diagrs., 5 tabs. (NACA TN 2965)

ACCELERATIONS AND PASSENGER HARNESS LOADS MEASURED IN FULL-SCALE LIGHT-AIRPLANE CRASHES. A. Martin Eiband, Scott H. Simpkinson and Dugald O. Black. August 1953. 67p. diagrs., photos. (NACA TN 2991)

ANALYTICAL INVESTIGATION OF FUEL TEMPERATURES AND FUEL-EVAPORATION LOSSES ENCOUNTERED IN LONG-RANGE HIGH-ALTITUDE SUPERSONIC FLIGHT. Richard J. McCafferty. August 1953. 38p. diagrs., 2 tabs. (NACA RM E53E25)

APPRAISAL OF HAZARDS TO HUMAN SURVIVAL IN AIRPLANE CRASH FIRES. Gerard J. Pesman. September 1953. 98p. diagrs., photos., 4 tabs. (NACA TN 2996)

SUMMARY OF REVISED GUST-VELOCITY DATA OBTAINED FROM V-G RECORDS TAKEN ON CIVIL TRANSPORT AIRPLANES FROM 1933 TO 1950. Walter G. Walker. November 1953. 16p. diagrs., 4 tabs. (NACA TN 3041)

GUST LOADS AND OPERATING AIRSPEEDS OF ONE TYPE OF FOUR-ENGINE TRANSPORT AIRPLANE ON THREE ROUTES FROM 1949 TO 1953. Walter G. Walker. November 1953. 34p. diagrs., 4 tabs. (NACA TN 3051)

TOOTH-TYPE NOISE-SUPPRESSION DEVICES ON A FULL-SCALE AXIAL-FLOW TURBOJET ENGINE. Edmund E. Callaghan, Walton Howes and Warren North. March 1954. 16p. diagrs., photos. (NACA RM E54B01)

MANEUVER ACCELERATIONS EXPERIENCED BY FIVE TYPES OF COMMERCIAL TRANSPORT AIRPLANES DURING ROUTINE OPERATIONS. Thomas L. Coleman and Martin R. Copp. April 1954. 26p. diagrs., 3 tabs. (NACA TN 3086)

Safety

(7.1)

STUDY OF INADVERTENT SPEED INCREASES IN TRANSPORT OPERATION. Henry A. Pearson. 1953. ii, 11p. diagrs., tab. (NACA Rept. 1138. Formerly TN 2638)

AN ANALYSIS OF THE POWER-OFF LANDING MANEUVER IN TERMS OF THE CAPABILITIES OF THE PILOT AND THE AERODYNAMIC CHARACTERISTICS OF THE AIRPLANE. Albert E. von Doenhoff and George W. Jones, Jr. August 1953. 42p. diagrs. (NACA TN 2967)

ACCELERATIONS AND PASSENGER HARNESS LOADS MEASURED IN FULL-SCALE LIGHT-AIRPLANE CRASHES. A. Martin Eiband, Scott H. Simpkinson and Dugald O. Black. August 1953. 67p. diagrs., photos. (NACA TN 2991)

APPRAISAL OF HAZARDS TO HUMAN SURVIVAL IN AIRPLANE CRASH FIRES. Gerard J. Pesman. September 1953. 98p. diagrs., photos., 4 tabs. (NACA TN 2996)

COMPARISON OF MODEL AND FULL-SCALE SPIN RECOVERIES OBTAINED BY USE OF ROCKETS. Sanger M. Burk, Jr. and Frederick M. Healy. February 1954. 63p. diagrs., photos., 5 tabs. (NACA TN 3068)

Navigation
(7.2)

EXPERIMENTAL INVESTIGATION OF RADOME ICING AND ICING PROTECTION. James P. Lewis and Robert J. Blade. January 1953. 60p. diagrs., photos. (NACA RM E52J31)

Ice Prevention and Removal (7.3)

COMPARISON OF SEVERAL METHODS OF CYCLIC DE-ICING OF A GAS-HEATED AIRFOIL. Vernon H. Gray and Dean T. Bowden. June 1953. 66p. diagrs., photos., 2 tabs. (NACA RM E53C27)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

MAXIMUM EVAPORATION RATES OF WATER DROPLETS APPROACHING OBSTACLES IN THE ATMOSPHERE UNDER ICING CONDITIONS. Herman H. Lowell. October 1953. 56p. diagrs., 3 tabs. (NACA TN 3024)

ANALOGY BETWEEN MASS AND HEAT TRANSFER WITH TURBULENT FLOW. Edmund E. Callaghan. October 1953. 19p. diagrs. (NACA TN 3045)

IMPINGEMENT OF WATER DROPLETS ON NACA 65A004 AIRFOIL AND EFFECT OF CHANGE IN AIRFOIL THICKNESS FROM 12 TO 4 PERCENT AT 4° ANGLE OF ATTACK. Rinaldo J. Brun, Helen M. Gallagher and Dorothea E. Vogt. November 1953. 45p. diagrs., tab. (NACA TN 3047)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

EXPERIMENTAL INVESTIGATION OF SUBLIMATION OF ICE AT SUBSONIC AND SUPERSONIC SPEEDS AND ITS RELATION TO HEAT TRANSFER. Willard D. Coles and Robert S. Ruggeri. March 1954. 29p. diagrs., photo. (NACA TN 3104)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

ENGINE INDUCTION SYSTEMS (7.3.1)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. I - ALTERNATE-DUCT SYSTEM. Uwe von Glahn. May 28, 1948. 77p. diagrs., photos., 3 tabs. (NACA RM E8A27) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. II - SINGLE-OFFSET-DUCT SYSTEM. Uwe von Glahn. June 8, 1948. 11p. diagrs., photos. (NACA RM E8A28) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINFS BY INERTIA SEPARATION OF WATER. III - ANNULAR SUBMERGED INLETS. Uwe von Glahn. June 8, 1948. 21p. diagrs., photos., tab. (NACA RM E8A29) (Declassified from Restricted, 12/14/53)

PRELIMINARY RESULTS OF NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE. Loren W. Acker. August 6, 1948. 16p. diagrs., photos. (NACA RM E8C18) (Declassified from Restricted, 12/14/53)

NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE IN FLIGHT FOR A SINGLE ICING CONDITION. Loren W. Acker. August 12, 1948. 16p. diagrs., photos. (NACA RM E8F01a) (Declassified from Restricted, 12/14/53)

INLET ICING AND EFFECTIVENESS OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINE. William A. Fleming and Martin J. Saari. November 26, 1948. 37p. diagrs., photos. (NACA RM E8J25c) (Declassified from Restricted, 12/14/53)

EFFECTS OF INLET ICING ON PERFORMANCE OF AXIAL-FLOW TURBOJET ENGINE IN NATURAL ICING CONDITIONS. Loren W. Acker and Kenneth S. Kleinknecht. May 25, 1950. 61p. diagrs., photos., tab. (NACA RM E50C15) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF WATER-INERTIA-SEPARATION INLETS FOR TURBOJET ENGINES. Uwe von Glahn and Robert E. Blatz. July 26, 1950. 54p. diagrs., photos., 3 tabs. (NACA RM E50E03) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF A FLUSH ALTERNATE-INLET INDUCTION-SYSTEM AIR SCOOP. James P. Lewis. July 1953. 42p. diagrs., photos. (NACA RM E53E07)

PRELIMINARY RESULTS OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL SPINNER. U. von Glahn. August 1953. 35p. diagrs., photo., 2 tabs. (NACA RM E53F02)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

PROPELLERS (7.3.2)

AN INVESTIGATION UTILIZING AN ELECTRICAL ANALOGUE OF CYCLIC DE-ICING OF HOLLOW STEEL PROPELLERS WITH INTERNAL ELECTRIC HEATERS. Carr B. Neel, Jr. October 1953. 31p. diagrs., photo., 3 tabs. (NACA TN 3025)

IMPINGEMENT OF WATER DROPLETS ON NACA 65A004 AIRFOIL AND EFFECT OF CHANGE IN AIRFOIL THICKNESS FROM 12 TO 4 PERCENT AT 4° ANGLE OF ATTACK. Rinaldo J. Brun, Helen M. Gallagher and Dorothea E. Vogt. November 1953. 45p. diagrs., tab. (NACA TN 3047)

WINGS AND TAILS (7.3.3)

AN EMPIRICALLY DERIVED BASIS FOR CALCULATING THE AREA, RATE, AND DISTRIBUTION OF WATER-DROP IMPINGEMENT ON AIRFOILS Norman R. Bergrun. 1952. ii, 21p. diagrs., 6 tabs. (NACA Rept. 1107)

EFFECT OF ICE AND FROST FORMATIONS ON DRAG OF NACA 65_1-212 AIRFOIL FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Vernon H. Gray and Uwe H. von Glahn. June 1953. 68p. diagrs., photos. (NACA TN 2962)

COMPARISON OF SEVERAL METHODS OF CYCLIC DE-ICING OF A GAS-HEATED AIRFOIL. Vernon H. Gray and Dean T. Bowden. June 1953. 66p. diagrs., photos., 2 tabs. (NACA RM E53C27)

IMPINGEMENT OF WATER DROPLETS ON WEDGES AND DIAMOND AIRFOILS AT SUPERSONIC SPEEDS. John S. Serafini. July 1953. 62p. diagrs. (NACA TN 2971)

IMPINGEMENT OF WATER DROPLETS ON NACA 65A004 AIRFOIL AND EFFECT OF CHANGE IN AIRFOIL THICKNESS FROM 12 TO 4 PERCENT AT 4° ANGLE OF ATTACK. Rinaldo J. Brun, Helen M. Gallagher and Dorothea E. Vogt. November 1953. 45p. diagrs., tab. (NACA TN 3047)

EFFECT OF ICE FORMATIONS ON SECTION DRAG OF SWEPT NACA 63A-009 AIRFOIL WITH PARTIAL-SPAN LEADING-EDGE SLAT FOR VARIOUS MODES OF THERMAL ICE PROTECTION. Uwe H. von Glahn and Vernon H. Gray. March 1954. 59p. diagrs., photos. (NACA RM E53J30)

MISCELLANEOUS ACCESSORIES (7.3.5)

EXPERIMENTAL INVESTIGATION OF RADOME ICING AND ICING PROTECTION. James P. Lewis and Robert J. Blade. January 1953. 60p. diagrs., photos. (NACA RM E52J31)

PRELIMINARY RESULTS OF HEAT TRANSFER FROM A STATIONARY AND ROTATING ELLIPSOIDAL SPINNER. U. von Glahn. August 1953. 35p. diagrs., photo., 2 tabs. (NACA RM E53F02)

IMPINGEMENT OF DROPLETS IN 90° ELBOWS WITH POTENTIAL FLOW. Paul T. Hacker, Rinaldo J. Brun and Bemrose Boyd. September 1953. 58p. diagrs., 2 tabs. (NACA TN 2999)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 5 IN AXISYMMETRIC FLOW. Robert G. Dorsch, Rinaldo J. Brun and John L. Gregg. March 1954. 50p. diagrs., tab. (NACA TN 3099)

IMPINGEMENT OF WATER DROPLETS ON AN ELLIPSOID WITH FINENESS RATIO 10 IN AXISYMMETRIC FLOW. Rinaldo J. Brun and Robert G. Dorsch. May 1954. 37p. diagrs., tab. (NACA TN 3147)

PROPULSION SYSTEMS (7.3.6)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. I - ALTERNATE-DUCT SYSTEM. Uwe von Glahn. May 28, 1948. 77p. diagrs., photos., 3 tabs. (NACA RM E8A27) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. II - SINGLE-OFFSET-DUCT SYSTEM. Uwe von Glahn. June 8, 1948. 11p. diagrs., photos. (NACA RM E8A28) (Declassified from Restricted, 12/14/53)

ICE PROTECTION OF TURBOJET ENGINES BY INERTIA SEPARATION OF WATER. III - ANNULAR SUBMERGED INLETS. Uwe von Glahn. June 8, 1948. 21p. diagrs., photos., tab. (NACA RM E8A29) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. I - NACELLE WITH OFFSET AIR INLET. Edmund E. Callaghan, Robert S. Ruggeri and Richard P. Krebs. July 9, 1948. 22p. diagrs. (NACA RM E8D13) (Declassified from Restricted, 12/14/53)

Propulsion Systems (Cont.)

PRELIMINARY RESULTS OF NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE. Loren W. Acker. August 6, 1948. 16p. diagrs., photos. (NACA RM E8C18) (Declassified from Restricted, 12/14/53)

NATURAL ICING OF AN AXIAL-FLOW TURBOJET ENGINE IN FLIGHT FOR A SINGLE ICING CONDITION. Loren W. Acker. August 12, 1948. 16p. diagrs., photos. (NACA RM E8F01a) (Declassified from Restricted, 12/14/53)

INLET ICING AND EFFECTIVENESS OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINE. William A. Fleming and Martin J. Saari. November 26, 1948. 37p. diagrs., photos. (NACA RM E8J25c) (Declassified from Restricted, 12/14/53)

EFFECT OF HOT-GAS BLEEDBACK ICE PREVENTION ON PERFORMANCE OF A TURBOJET ENGINE WITH FIXED-AREA TAIL-PIPE NOZZLE. Robert O. Dietz, Jr. and Richard P. Krebs. May 16, 1949. 26p. diagrs. (NACA RM E9B23) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. II - NACELLE WITH LONG STRAIGHT AIR INLET. Edmund E. Callaghan and Robert S. Ruggeri. May 26, 1949. 34p. diagrs., photo. (NACA RM E9C16) (Declassified from Restricted, 12/14/53)

EXPERIMENTAL INVESTIGATION OF HOT-GAS BLEEDBACK FOR ICE PROTECTION OF TURBOJET ENGINES. III - NACELLE WITH SHORT STRAIGHT AIR INLET. Robert S. Ruggeri and Edmund E. Callaghan. August 4, 1949. 24p. diagrs., photo. (NACA RM E9E12) (Declassified from Restricted, 12/14/53)

ANALYSIS AND PRELIMINARY INVESTIGATION OF EDDY-CURRENT HEATING FOR ICING PROTECTION OF AXIAL-FLOW-COMPRESSOR BLADES. Thomas Dallas and C. Ellisman. August 8, 1949. 66p. diagrs., photos., tab. (NACA RM E9E06) (Declassified from Restricted, 12/14/53)

EFFECTS OF INLET ICING ON PERFORMANCE OF AXIAL-FLOW TURBOJET ENGINE IN NATURAL ICING CONDITIONS. Loren W. Acker and Kenneth S. Kleinknecht. May 25, 1950. 61p. diagrs., photos., tab. (NACA RM E50C15) (Declassified from Restricted, 12/11/53)

INVESTIGATION OF AERODYNAMIC AND ICING CHARACTERISTICS OF WATER-INERTIA-SEPARATION INLETS FOR TURBOJET ENGINES. Uwe von Glahn and Robert E. Blatz. July 26, 1950. 54p. diagrs., photos., 3 tabs. (NACA RM E50E03) (Declassified from Restricted, 12/11/53)

Noise
(7.4)

PROPELLER-NOISE CHARTS FOR TRANSPORT AIRPLANES. Harvey H. Hubbard. June 1953. 47p. diagrs., photos., tab. (NACA TN 2968)

A THEORETICAL STUDY OF THE EFFECT OF FORWARD SPEED ON THE FREE-SPACE SOUND-PRESSURE FIELD AROUND PROPELLERS. I. E. Garrick and C. E. Watkins. October 1953. 39p. diagrs., tab. (NACA TN 3018)

TOOTH-TYPE NOISE-SUPPRESSION DEVICES ON A FULL-SCALE AXIAL-FLOW TURBOJET ENGINE. Edmund E. Callaghan, Walton Howes and Warren North. March 1954. 16p. diagrs., photos. (NACA RM E54B01)

Piloting Techniques
(7.7)

STUDY OF INADVERTENT SPEED INCREASES IN TRANSPORT OPERATION. Henry A. Pearson. 1953. ii, 11p. diagrs., tab. (NACA Rept. 1138. Formerly TN 2638)

AN ANALYSIS OF THE POWER-OFF LANDING MANEUVER IN TERMS OF THE CAPABILITIES OF THE PILOT AND THE AERODYNAMIC CHARACTERISTICS OF THE AIRPLANE. Albert E. von Doenhoff and George W. Jones, Jr. August 1953. 42p. diagrs. (NACA TN 2967)

Physiological
(7.8)

AN ANALYSIS OF THE POWER-OFF LANDING MANEUVER IN TERMS OF THE CAPABILITIES OF THE PILOT AND THE AERODYNAMIC CHARACTERISTICS OF THE AIRPLANE. Albert E. von Doenhoff and George W. Jones, Jr. August 1953. 42p. diagrs. (NACA TN 2967)

Fire Hazards
(7.9)

ACCELERATIONS AND PASSENGER HARNESS LOADS MEASURED IN FULL-SCALE LIGHT-AIRPLANE CRASHES. A. Martin Elband, Scott H. Simpkinson and Dugald O. Black. August 1953. 67p. diagrs., photos. (NACA TN 2991)

APPRAISAL OF HAZARDS TO HUMAN SURVIVAL IN AIRPLANE CRASH FIRES. Gerard J. Pesman. September 1953. 98p. diagrs., photos., 4 tabs. (NACA TN 2996)

ELECTROSTATIC SPARK IGNITION-SOURCE HAZARD IN AIRPLANE CRASHES. Arthur M. Busch. October 1953. 28p. diagrs., photos., tab. (NACA TN 3026)

LUBRICANTS OF REDUCED FLAMMABILITY. Charles E. Frank, Donald E. Swarts and Kenneth T. Mecklenborg, University of Cincinnati. January 1954. 24p. diagrs., tab. (NACA TN 3117)

General

(7.10)

AN ANALYTICAL STUDY OF THE EFFECT OF AIRPLANE WAKE ON THE LATERAL DISPERSION OF AERIAL SPRAYS. Wilmer H. Reed, III. October 1953. 46p. diagrs., 3 tabs. (NACA TN 3032)

TOOTH-TYPE NOISE-SUPPRESSION DEVICES ON A FULL-SCALE AXIAL-FLOW TURBOJET ENGINE. Edmund E. Callaghan, Walton Howes and Warren North. March 1954. 16p. diagrs., photos. (NACA RM E54B01)

INSTRUMENTS
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A PHOTOGRAPHIC METHOD FOR DETERMINING VERTICAL VELOCITIES OF AIRCRAFT IMMEDIATELY PRIOR TO LANDING. Emanuel Rind. January 1954. 23p. diagrs., photos. (NACA TN 3050)

Flight
(8.1)

WING-FLOW INVESTIGATION OF A 45° CONE AS AN ANGLE-OF-ATTACK MEASURING DEVICE AT TRANSONIC SPEEDS. Herbert C. McClanahan, Jr. July 1951. 15p. photos., diagrs. (NACA RM L51E16)

INITIAL RESULTS OF INSTRUMENT-FLYING TRIALS CONDUCTED IN A SINGLE-ROTOR HELICOPTER. Almer D. Crim, John P. Reeder and James B. Whitten. 1953. ii, 7p., diagrs., photos. (NACA Rept. 1137. Formerly TN 2721)

PROCEDURE FOR MEASURING LIQUID-WATER CONTENT AND DROPLET SIZES IN SUPERCOOLED CLOUDS BY ROTATING MULTICYLINDER METHOD. William Lewis, Porter J. Perkins and Rinaldo J. Brun. Appendix C: ALTERNATE METHOD OF REDUCING ROTATING MULTICYLINDER DATA. Paul T. Hacker. June 1953. 48p. diagrs., photos., 4 tabs. (NACA RM E53D23)

MAXIMUM EVAPORATION RATES OF WATER DROPLETS APPROACHING OBSTACLES IN THE ATMOSPHERE UNDER ICING CONDITIONS. Herman H. Lowell. October 1953. 56p. diagrs., 3 tabs. (NACA TN 3024)

FLIGHT INVESTIGATION AT LARGE ANGLES OF ATTACK OF THE STATIC-PRESSURE ERRORS OF A SERVICE PITOT-STATIC TUBE HAVING A MODIFIED ORIFICE CONFIGURATION. William Gracey and Elwood F. Scheithauer. February 1954. 25p. diagrs., photos. (NACA TN 3159)

EVALUATION OF THE ACCURACY OF AN AIRCRAFT RADIO ALTIMETER FOR USE IN A METHOD OF AIRSPEED CALIBRATION. Jim Rogers Thompson and Max C. Kurbjun. May 1954. 15p. diagrs., photos., tab. (NACA TN 3186)

Laboratory
(8.2)

CORRELATION OF LABORATORY SMOKE TEST WITH CARBON DEPOSITION IN TURBOJET COMBUSTORS. Arthur M. Busch. February 3, 1950. 15p. diagrs., 3 tabs. (NACA RM E9K04) (Declassified from Restricted, 12/14/53)

INSTRUMENTATION OF THE AMES SUPERSONIC FREE-FLIGHT WIND TUNNEL. Robert O. Briggs, William J. Kerwin and Stanley F. Schmidt. April 1952. 46p. photos., diagrs., 3 tabs. (NACA RM A52A18)

A SMALL PIRANI GAGE FOR MEASUREMENTS OF NONSTEADY LOW PRESSURES. M. John Pilny. June 1953. i, 36p. diagrs., photos. (NACA TN 2946)

MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence. August 1953. 45p. diagrs. (NACA RM E53F19)

A NEW SIMPLE INTERFEROMETER FOR OBTAINING QUANTITATIVELY EVALUABLE FLOW PATTERNS. (Ein Neues, Sehr Einfaches Interferometer zum Erhalt Quantitativ Auswertbarer Strömungsbilder). S. F. Erdmann. November 1953. 62p. diagrs., photos. (NACA TM 1363. Trans. from Applied Scientific Research, v. B2)

HIGH-FREQUENCY PRESSURE INDICATORS FOR AERODYNAMIC PROBLEMS. Y. T. Li, Massachusetts Institute of Technology. November 1953. 52p. diagrs., photos., 4 tabs. (NACA TN 3042)

DENSITY PROFILES OF SUBSONIC BOUNDARY LAYERS ON A FLAT PLATE DETERMINED BY X-RAY AND PRESSURE MEASUREMENTS. Ruth N. Weltmann and Perry W. Kuhns. February 1954. 30p. diagrs., photos. (NACA TN 3098)

FATIGUE INVESTIGATION OF FULL-SCALE TRANSPORT-AIRPLANE WINGS. SUMMARY OF CONSTANT-AMPLITUDE TESTS THROUGH 1953. M. J. McGuigan, Jr., D. F. Bryan and R. E. Whaley. Appendix A. NOTES ON THE USE OF BONDED WIRES TO DETECT FATIGUE CRACKS. M. H. Levin. March 1954. 45p. diagrs., photos., 3 tabs. (NACA TN 3190)

APPLICATION OF PULSE TECHNIQUES TO STRAIN GAGES. Newell D. Sanders and George H. Brodie. May 1954. 17p. diagrs. (NACA RM E54B08)

Meteorological

(8.3)

PROCEDURE FOR MEASURING LIQUID-WATER CONTENT AND DROPLET SIZES IN SUPERCOOLED CLOUDS BY ROTATING MULTICYLINDER METHOD. William Lewis, Porter J. Perkins and Rinaldo J. Brun. Appendix C: ALTERNATE METHOD OF REDUCING ROTATING MULTICYLINDER DATA. Paul T. Hacker. June 1953. 48p. diagrs., photos., 4 tabs. (NACA RM E53D23)

AN EXPERIMENTAL STUDY OF THE RELATION BETWEEN AIRPLANE AND WIND-VANE MEASUREMENTS OF ATMOSPHERIC TURBULENCE. H. B. Tolefson, K. G. Pratt and J. K. Thompson. July 1953. 20p. diagrs., photos., 3 tabs. (NACA RM L52L29b)

MAXIMUM EVAPORATION RATES OF WATER DROPLETS APPROACHING OBSTACLES IN THE ATMOSPHERE UNDER ICING CONDITIONS. Herman H. Lowell. October 1953. 56p. diagrs. 3 tabs. (NACA TN 3024)

RESEARCH EQUIPMENT AND TECHNIQUES

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NACA TRANSONIC WIND-TUNNEL TEST SECTIONS. Ray H. Wright and Vernon G. Ward. October 25, 1948. 93p. diagrs., photos., 3 tabs. (NACA RM L8J06) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF POROUS WALLS AS A MEANS OF REDUCING TUNNEL BOUNDARY EFFECTS AT LOW-SUPERSONIC MACH NUMBERS. William J. Nelson and Frederick Bloetscher. September 13, 1950. 21p. diagrs., photos. (NACA RM L50D27) (Declassified from Confidential, 3/10/54)

ACCELERATIONS AND PASSENGER HARNESS LOADS MEASURED IN FULL-SCALE LIGHT-AIRPLANE CRASHES. A. Martin Eiband, Scott H. Simpkinson and Dugald O. Black. August 1953. 67p. diagrs., photos. (NACA TN 2991)

NEW EXPERIMENTS ON IMPACT-PRESSURE INTERPRETATION IN SUPERSONIC AND SUBSONIC RAREFIED AIR STREAMS. F. S. Sherman. University of California. September 1953. 73p. diagrs., photos., 2 tabs. (NACA TN 2995)

APPLICATION OF AN ELECTRO-OPTICAL TWO-COLOR PYROMETER TO MEASUREMENT OF FLAME TEMPERATURE FOR LIQUID OXYGEN - HYDROCARBON PROPELLANT COMBINATION. M. F. Heidmann and R. J. Priem. October 1953. 39p. diagrs., photos. (NACA TN 3033)

Equipment

(9.1)

NACA TRANSONIC WIND-TUNNEL TEST SECTIONS. Ray H. Wright and Vernon G. Ward. October 25, 1948. 93p. diagrs., photos., 3 tabs. (NACA RM L8J06) (Declassified from Confidential, 3/10/54)

ABILITY OF PILOTS TO CONTROL SIMULATED SHORT-PERIOD YAWING OSCILLATIONS. William H. Phillips and Donald C. Cheatham. November 13, 1950. 23p. diagrs., photos., tab. (NACA RM L50D06) (Declassified from Restricted, 12/11/53)

CONSIDERATIONS ON A LARGE HYDRAULIC JET CATAPULT. Upshur T. Joyner and Walter B. Horne. April 12, 1951. 57p. diagrs., photos., tab. (NACA RM L51B27) (Declassified from Restricted, 12/7/53)

INSTRUMENTATION OF THE AMES SUPERSONIC FREE-FLIGHT WIND TUNNEL. Robert O. Briggs, William J. Kerwin and Stanley F. Schmidt. April 1952. 46p. photos., diagrs., 3 tabs. (NACA RM A52A18)

A STUDY OF THE CHARACTERISTICS OF HUMAN-PILOT CONTROL RESPONSE TO SIMULATED AIRCRAFT LATERAL MOTIONS. Donald C. Cheatham. May 1952. 39p. diagrs., photos., tab. (NACA RM L52C17)

A SMALL PIRANI GAGE FOR MEASUREMENTS OF NONSTEADY LOW PRESSURES. M. John Pilny. June 1953. i, 36p. diagrs., photos. (NACA TN 2946)

COUNTING METHODS AND EQUIPMENT FOR MEAN-VALUE MEASUREMENTS IN TURBULENCE RESEARCH. H. W. Liepmann and M. S. Robinson, California Institute of Technology. October 1953. 49p. diagrs., photos. (NACA TN 3037)

A NEW SIMPLE INTERFEROMETER FOR OBTAINING QUANTITATIVELY EVALUABLE FLOW PATTERNS. (Ein Neues, Sehr Einfaches Interferometer zum Erhalt Quantitativ Auswertbarer Strömungsbilder). S. F. Erdmann. November 1953. 62p. diagrs., photos. (NACA TM 1363. Trans. from Applied Scientific Research, v. B2)

HIGH-FREQUENCY PRESSURE INDICATORS FOR AERODYNAMIC PROBLEMS. Y. T. Li, Massachusetts Institute of Technology. November 1953. 52p. diagrs., photos., 4 tabs. (NACA TN 3042)

A PHOTOGRAPHIC METHOD FOR DETERMINING VERTICAL VELOCITIES OF AIRCRAFT IMMEDIATELY PRIOR TO LANDING. Emanuel Rind. January 1954. 23p. diagrs., photos. (NACA TN 3050)

AN ANALYTICAL AND EXPERIMENTAL STUDY OF THE TRANSIENT RESPONSE OF A PRESSURE-REGULATING RELIEF VALVE IN A HYDRAULIC CIRCUIT. Harold Gold and Edward W. Otto. March 1954. 54p. diagrs., photo., 3 tabs. (NACA TN 3102)

ION TRACER TECHNIQUE FOR AIRSPEED MEASUREMENT AT LOW DENSITIES. W. B. Kunkel and L. Talbot, University of California. March 1954. 31p. diagrs. (NACA TN 3177)

WIND TUNNELS

(9.1.1)

NACA TRANSONIC WIND-TUNNEL TEST SECTIONS. Ray H. Wright and Vernon G. Ward. October 25, 1948. 93p. diagrs., photos., 3 tabs. (NACA RM L8J06) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF A VARIABLE-MACH NUMBER TWO-DIMENSIONAL SUPERSONIC TUNNEL OF FIXED GEOMETRY. William J. Nelson and Frederick Bloetscher. June 9, 1949. 54p. diagrs., photos. (NACA RM L9D29a) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF 3-INCH SLOTTED TRANSONIC WIND-TUNNEL TEST SECTIONS. George P. Bates. September 9, 1949. 18p. diagrs. (NACA RM L9D18) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF CONSTANT-GEOMETRY, VARIABLE MACH NUMBER, SUPERSONIC TUNNEL WITH POROUS WALLS. William J. Nelson and Paul L. Klevatt. May 3, 1950. 27p. diagrs., photos. (NACA RM L50B01) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF REFLECTIONS OF OBLIQUE WAVES FROM A POROUS WALL. Don D. Davis, Jr. and George P. Wood. November 9, 1950. 33p. diagrs., photos. (NACA RM L50G19a) (Declassified from Confidential, 3/10/54)

PRELIMINARY INVESTIGATION OF THE SUPERSONIC FLOW FIELD DOWNSTREAM OF WIRE-MESH NOZZLES IN A CONSTANT-AREA DUCT. Lawrence I. Gould. August 1951. 22p. diagrs., photos. (NACA RM E51F25)

THE LANGLEY ANNULAR TRANSONIC TUNNEL. Louis W. Habel, James H. Henderson and Mason F. Miller. 1952. ii, 10p. diagrs., photos. (NACA Rept. 1106. Formerly RM L8A23; RM L50E18)

THE AMES SUPERSONIC FREE-FLIGHT WIND TUNNEL. Alvin Seiff, Carlton S. James, Thomas N. Canning and Alfred G. Boissevain. April 1952. 30p. diagrs., photos. (NACA RM A52A24)

REFLECTION OF SHOCK WAVES FROM SLOTTED WALLS AT MACH NUMBER 1.62. George P. Wood. July 21, 1952. 16p. diagrs., photos. (NACA RM L52E27) (Declassified from Confidential, 3/10/54)

Wind Tunnel (Cont.)

INVESTIGATION OF AXIALLY SYMMETRIC AND TWO-DIMENSIONAL MULTINOZZLES FOR PRODUCING SUPERSONIC STREAMS. Eli Reshotko and Rudolph C. Haefeli. October 1952. 35p. diagrs., photos., tab. (NACA RM E52H28)

SPECTRUM OF TURBULENCE IN A CONTRACTING STREAM. H. S. Ribner and M. Tucker. 1953. ii, 17p. diagrs., tab. (NACA Rept. 1113. Formerly TN 2606)

ANALYTICAL STUDY OF BLOCKAGE- AND LIFT-INTERFERENCE CORRECTIONS FOR SLOTTED TUNNELS OBTAINED BY THE SUBSTITUTION OF AN EQUIVALENT HOMOGENEOUS BOUNDARY FOR THE DISCRETE SLOTS. Don D. Davis, Jr. and Dewey Moore. June 29, 1953. 57p. diagrs. (NACA RM L53E07b) (Declassified from Confidential, 3/10/54)

STUDIES OF THE USE OF FREON-12 AS A WIND-TUNNEL TESTING MEDIUM. Albert E. von Doenhoff, Albert L. Braslow and Milton A. Schwartzberg. August 1953. 57p. diagrs. (NACA TN 3000)

DETERMINATION OF BOUNDARY-LAYER TRANSITION REYNOLDS NUMBERS BY SURFACE-TEMPERATURE MEASUREMENT OF A 10° CONE IN VARIOUS NACA SUPERSONIC WIND TUNNELS. Albert O. Ross. October 1953. 26p. diagrs., tab. (NACA TN 3020)

THE AMES 10- BY 14-INCH SUPERSONIC WIND TUNNEL. A. J. Eggers, Jr. and George J. Nothwang. January 1954. 43p. diagrs., photos., tab. (NACA TN 3095)

DENSITY PROFILES OF SUBSONIC BOUNDARY LAYERS ON A FLAT PLATE DETERMINED BY X-RAY AND PRESSURE MEASUREMENTS. Ruth N. Weltmann and Perry W. Kuhns. February 1954. 30p. diagrs., photos. (NACA TN 3098)

STATISTICAL STUDY OF TRANSITION-POINT FLUCTUATIONS IN SUPERSONIC FLOW. J. C. Evvard, M. Tucker and W. C. Burgess, Jr. Appendix B. MATHEMATICAL PROCEDURES. Hugo Heermann. March 1954. 32p. diagrs., photos., tab. (NACA TN 3100)

TRANSIENT TEMPERATURES IN HEAT EXCHANGERS FOR SUPERSONIC BLOWDOWN TUNNELS. Joseph H. Judd. April 1954. 35p. diagrs., 2 tabs. (NACA TN 3078)

THE ZERO-LIFT DRAG OF A 60° DELTA-WING—BODY COMBINATION (AGARD MODEL 2) OBTAINED FROM FREE-FLIGHT TESTS BETWEEN MACH NUMBERS OF 0.8 AND 1.7. Robert O. Piland. April 1954. 11p. diagrs., 2 tabs. (NACA TN 3081)

FREE-FLIGHT (9.1.2)

RESULTS OF PRELIMINARY FLIGHT INVESTIGATION OF AERODYNAMIC CHARACTERISTICS OF THE NACA TWO-STAGE SUPERSONIC RESEARCH MODEL RM-1 STABILIZED IN ROLL AT TRANSONIC AND SUPERSONIC VELOCITIES. Marvin Pitkin, William N. Gardner and Howard J. Curfman, Jr. March 19, 1947. 55p. diagrs., photos. (NACA RM L6J23) (Declassified from Confidential, 11/10/53)

TRANSONIC-FLUTTER INVESTIGATION OF WINGS ATTACHED TO TWO LOW-ACCELERATION ROCKET-PROPELLED VEHICLES. Reginald R. Lundstrom, William T. Lauten, Jr. and Ellwyn E. Angle. November 23, 1948. 24p. diagrs., photos., 3 tabs. (NACA RM L8I30) (Declassified from Restricted, 12/14/53)

WING-FLOW INVESTIGATION OF A 45° CONE AS AN ANGLE-OF-ATTACK MEASURING DEVICE AT TRANSONIC SPEEDS. Herbert C. McClanahan, Jr. July 1951. 15p. photos., diagrs. (NACA RM L51E16)

THE AMES SUPERSONIC FREE-FLIGHT WIND TUNNEL. Alvin Seiff, Carlton S. James, Thomas N. Canning and Alfred G. Boissevain. April 1952. 30p. diagrs., photos. (NACA RM A52A24)

FLIGHT INVESTIGATION AT LARGE ANGLES OF ATTACK OF THE STATIC-PRESSURE ERRORS OF A SERVICE PITOT-STATIC TUBE HAVING A MODIFIED ORIFICE CONFIGURATION. William Gracey and Elwood F. Scheithauer. February 1954. 25p. diagrs., photos. (NACA TN 3159)

THE ZERO-LIFT DRAG OF A 60° DELTA-WING—BODY COMBINATION (AGARD MODEL 2) OBTAINED FROM FREE-FLIGHT TESTS BETWEEN MACH NUMBERS OF 0.8 AND 1.7. Robert O. Piland. April 1954. 11p. diagrs., 2 tabs. (NACA TN 3081)

EVALUATION OF THE ACCURACY OF AN AIRCRAFT RADIO ALTIMETER FOR USE IN A METHOD OF AIRSPEED CALIBRATION. Jim Rogers Thompson and Max C. Kurbjun. May 1954. 15p. diagrs., photos., tab. (NACA TN 3186)

PROPULSION RESEARCH EQUIPMENT (9.1.4)

MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence. August 1953. 45p. diagrs. (NACA RM E53F19)

MATERIALS

(9.1.6)

PRELIMINARY STUDY OF CIRCULATION IN AN APPARATUS SUITABLE FOR DETERMINING CORROSIVE EFFECTS OF HOT FLOWING LIQUIDS. Leland G. Desmon and Don R. Mosher. June 1951. 17p. diagrs., photos. (NACA RM E51D12)

RESISTANCE OF VARIOUS MATERIALS TO ATTACK BY MOLTEN BISMUTH-LEAD EUTECTIC AT ELEVATED TEMPERATURES. James J. Gangler and Walter J. Engel. September 1951. 14p. diagrs., photos., 2 tabs. (NACA RM E51F21)

FATIGUE TESTS AT STRESSES PRODUCING FAILURE IN 2 TO 10,000 CYCLES. 24S-T3 AND 75S-T6 ALUMINUM-ALLOY SHEET SPECIMENS WITH A THEORETICAL STRESS-CONCENTRATION FACTOR OF 4.0 SUBJECTED TO COMPLETELY REVERSED AXIAL LOAD. Herbert F. Hardrath and Walter Illg. January 1954. 14p. diagrs., photo., 2 tabs. (NACA TN 3132)

Technique (9.2)

INVESTIGATION OF WING CHARACTERISTICS AT A MACH NUMBER OF 1.53. I - TRIANGULAR WINGS OF ASPECT RATIO 2. Walter G. Vincenti, Jack N. Nielsen and Frederick H. Matteson. December 19, 1947. 83p. diagrs., photos., tab. (NACA RM A7I10) (Declassified from Confidential, 10/5/53)

PRESSURE DISTRIBUTION OVER A SHARP-NOSE BODY OF REVOLUTION AT TRANSONIC SPEEDS BY THE NACA WING-FLOW METHOD. Edward C. B. Danforth and J. Ford Johnston. March 5, 1948. 25p. diagrs., photos. (NACA RM L7K12) (Declassified from Confidential, 1/8/54)

TRANSONIC-FLUTTER INVESTIGATION OF WINGS ATTACHED TO TWO LOW-ACCELERATION ROCKET-PROPELLED VEHICLES. Reginald R. Lundstrom, William T. Lauten, Jr. and Ellwyn E. Angle. November 23, 1948. 24p. diagrs., photos., 3 tabs. (NACA RM L8I30) (Declassified from Restricted, 12/14/53)

ANALYTICAL DETERMINATION OF LOCAL SURFACE HEAT-TRANSFER COEFFICIENTS FOR COOLED TURBINE BLADES FROM MEASURED METAL TEMPERATURES. W. Byron Brown and Jack B. Esgar. August 11, 1950. 66p. diagrs. (NACA RM E50F09) (Declassified from Restricted, 12/11/53)

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HIGH-FREQUENCY PRESSURE INDICATORS FOR AERODYNAMIC PROBLEMS. Y. T. Li, Massachusetts Institute of Technology. November 1953. 52p. diagrs., photos., 4 tabs. (NACA TN 3042)

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CORRECTIONS (9.2.1)

PRELIMINARY INVESTIGATION OF POROUS WALLS AS A MEANS OF REDUCING TUNNEL BOUNDARY EFFECTS AT LOW-SUPERSONIC MACH NUMBERS. William J. Nelson and Frederick Bloetscher. September 13, 1950. 21p. diagrs., photos. (NACA RM L50D27) (Declassified from Confidential, 3/10/54)

COMPARISON OF TRANSONIC CHARACTERISTICS OF LIFTING WINGS FROM EXPERIMENTS IN A SMALL SLOTTED TUNNEL AND THE LANGLEY HIGH-SPEED 7- BY 10-FOOT TUNNEL. William C. Sleeman, Jr., Paul L. Klevatt and Edward L. Linsley. November 5, 1951. 44p. diagrs., photos. (NACA RM L51F14) (Declassified from Confidential, 3/10/54)

AN EXPERIMENTAL INVESTIGATION OF THE ZERO-LIFT PRESSURE DISTRIBUTION OVER A WEDGE AIRFOIL IN CLOSED, SLOTTED, AND OPEN-THROAT TUNNELS AT TRANSONIC MACH NUMBERS. William J. Nelson and Frederick Bloetscher. June 16, 1952. 34p. diagrs., photos. (NACA RM L52C18) (Declassified from Confidential, 3/10/54)

THEORETICAL STUDY OF THE TUNNEL-BOUNDARY LIFT INTERFERENCE DUE TO SLOTTED WALLS IN THE PRESENCE OF THE TRAILING-VORTEX SYSTEM OF A LIFTING MODEL. Clarence W. Matthews. April 7, 1953. 56p. diagrs. (NACA RM L53A26) (Declassified from Confidential, 3/10/54)

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RESULTS OF PRELIMINARY FLIGHT INVESTIGATION OF AERODYNAMIC CHARACTERISTICS OF THE NACA TWO-STAGE SUPERSONIC RESEARCH MODEL RM-1 STABILIZED IN ROLL AT TRANSONIC AND SUPERSONIC VELOCITIES. Marvin Pitkin, William N. Gardner and Howard J. Curfman, Jr. March 19, 1947. 55p. diagrs., photos. (NACA RM L6J23) (Declassified from Confidential, 11/10/53)

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PRELIMINARY INVESTIGATION OF POROUS WALLS AS A MEANS OF REDUCING TUNNEL BOUNDARY EFFECTS AT LOW-SUPERSONIC MACH NUMBERS. William J. Nelson and Frederick Bloetscher. September 13, 1950. 21p. diagrs., photos. (NACA RM L50D27) (Declassified from Confidential, 3/10/54)

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LOADS AND CONSTRUCTION

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MEASUREMENT AND ANALYSIS OF TURBULENT FLOW CONTAINING PERIODIC FLOW FLUCTUATIONS. William R. Mickelsen and James C. Laurence August 1953. 45p. diagrs. (NACA RM E53F19)

OPERATING PROBLEMS

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PRELIMINARY INVESTIGATION OF REFLECTIONS OF OBLIQUE WAVES FROM A POROUS WALL. Don D. Davis, Jr. and George P. Wood. November 9, 1950. 33p. diagrs., photos. (NACA RM L50G19a) (Declassified from Confidential, 3/10/54)

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